ULEMAVU WA WATOTO NA VIJANA TANZANIA: MPANGO BINAFSI WA MATIBABU KWA WATOTO NA VIJANA WENYE ULEMAVU TANZANIA

DISABILITY OF CHILDREN AND YOUTH IN TANZANIA:
INDIVIDUAL REHABILITATION PLANNING FOR DISABLED CHILDREN AND YOUTH IN TANZANIA

MAELEZO NA MAZOEZI

INSTRUCTIONS AND EXERCISES **2021**

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DIBAJI
PREFACE

Kitabu hiki kimeandikwa ili kuwasaidia wataalamu wa tiba mazoezi, madaktari na wauguzi na wahudumu wa tiba mazoezi (huduma ya utengamavu) kwenye jamii katika kazi zao za kuwasaidia watoto wenye ulemavu kuweza kutathmini na kupanga mpango binafsi wa tiba mazoezi, kufanya mazoezi, kuongoza wazazi na watoa huduma wengine na kuandaa (kupanga) vifaa kwa watoto au vijana wenye ulemavu.

This booklet is written to assist therapists, medical staff and community rehabilitation workers in their work in helping disabled children to assess and make individual rehabilitation planning, do exercises, superwise parents and other caregivers and plan for devices.

Kinatokana na kazi zetu pale kituo cha huduma za utengamavu katika jamii - INUKA, Wanging'ombe, Ilembula, Tanzania tangu mwaka 2011. Hiki si kitabu cha mambo yote kuhusu matatizo ya mfumo wa fahamu wa watoto, watoto wenye ulemavu, huduma ya utengamavu, na huduma nyingine za afya. Ni kwa ajili ya wafanyakazi ambao wamepitia semina na mafunzo yetu kuhusu walemavu kulingana na matatizo ya afya na tiba mazoezi (huduma ya utengamavu). Na vile vile kinatumia mambo yaliyomo katika kitabu chetu cha mwanzo "Jinsi ya kumuongoza mtoto wako wakati wa kumtunza" 2013, "Jinsi ya kumuongoza mtoto wako wakati wa ukuaji" 2015, "Vifaa vya watoto walemavu" 2014, "Vifaa kwa mtoto mtukutu" 2014, mazoezi ya kinywa "Motor exercises for mouth" 2014, jinsi ya kumsaidia mtoto kuongea "How to promote speech".

It is based on our work at Inuka Community Based Rehabilitation Centre at Wangingómbe Ilembula Tanzania since 2011. It is not a complete book about child neurology, handicaps, rehabilitation and medical care. It is meant mainly to those workers who have participated in our lessons and seminars about handicaps, assosiated medical problems and medical rehabilitation. It also uses the contents of our former booklets" Jinsi" ya kumuongoza mtoto wako wakati wa kumtunza" 2013," Jinsi ya kumuongoza mtoto wako wakati wa ukuaji" 2015, "Vifaa vya watoto walemavu" 2014, "Vifaa kwa mtoto mtukutu" 2014, "Motor exercises for mouth" 2014, "How to promote speech".

Chini ya usimamizi wetu tumejaribu kutoa mapendekezo yanayofaa na yanayowezekana kutumika katika eneo la Ilembula, Tanzania. Tumetumia mapendekezo yanayokubalika na mbinu zinazotumika kimataifa kwa tiba mazoezi. Waandishi wote wanauzoefu wa zaidi ya miaka 30 na mazoea ya kazi za watoto na vijana walemavu nchini Finland. Tumekuwa tukifanya kazi Tanzania chini ya mwamvuli wa "Rotary Doctor Bank of Finland," Ulla Maija Ritanen tangu mwaka 2009 pamoja na Irma Tarvainen tangu mwaka 2011.

In all our supervision we have tried to make the recommendations to be suitalbe and possible to put into practise in Tanzania Ilembula catchment area. We use only internationally widely accepted and practised methods of rehabilitation. Both writers have over 30-years experience in working with disabled children and youth in Finland. We have been working in Tanzania under the auspices of Rotary Doctor Bank of Finland Ulla Maija Ritanen since 2008 and with Irma Tarvainen since 2011.

Tunapenda kutoa shukurani zetu kwa Mratibu wa Inuka Stefano Cataldo na wafanyakazi wote waliotupokea na kukubali kufanya kazi nao, wafanyakazi wote wa Hospitali ya karibu ya kiinjili ya kilutheri Ilembula, Rotary Doctor Bank of Finland," na watu binafsi waliosaidia hususan Riitta Luukkonen "mtaalamu mazoezi ya kuongea ", Mr. Johnson Mluge kwa kutafsiri kutoka kiingereza kuwa Kiswahili na Richard Mahundi " Afisa Tabibu" kwa kusaidia katika kutafsiri. Tunatoa shukurani zetu za dhati kwa watu wote wenye ulemavu, watoto na vijana na walezi na watunzaji wao ambao kutoka kwao tumepata maoni jinsi ya aina na shughuli za matibabu husika na jinsi gani zinawasaidia vizuri. Tunawashukuru pia watoto wa Kituo cha yatima cha Ilembula hospitali ambao hawakuwa na matatizo yoyote kwa kujifanya kama wagonjwa kwa ajili ya upigaji wa picha za kitabu chetu.

We want to thank Inuka Director Stefano Cataldo and all other staff members who have allowed and welcomed us to work with them, all staff of nereby Ilembula Lutheran Hospital, Rotary Doctor Bank of Finland, many assisting individuals especially speech therapist Riitta Luukkonen, Mr. Johnson Mluge about translation from English to Swahili and Clinical officer Richard Mahundi about assisting in the translation. We especially thank all handicapped children and youth and their caregivers from whom we mainly get the feedback which type of rehabilitation activities are relevant and really helping. We also thank the children of Ilembula Hospital Orphanige and Tomi from Finland, who"act patients" in many pictures of our booklets.

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YALIYOMO **UKURASA**
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MPANGO BINAFSI WA TIBA MAZOEZI (UTENGAMAVU)
INDIVIDUAL REHABILITATION PLANNING

Maana ya ulemavu kadiri ya WHO (shirika la Afya Duniani)
ugonjwa au ajali > kuumia/uharibifu > kilema > ulemavu
WHO definition for handicaps:
illness or accident > trauma/damage > disability > handicap

Kuainisha magonjwa ni zaidi juu ya kuumia au uharibifu kama kuharibika kwa ubongo kwa sababu ya kuziba kwa mishipa ya kupita damu inayosababisha ' Dg infarctus cerebri' au ubongo kukosa hewa ghafla wakati kwa kuzaliwa mtoto "Dg brain atrophy". Mara nyingi hapa Tanzania hatuna vifaa vinavyoweza kuainisha vizuri bila vipimo vya mionzi "scanning" kama kuharibika kwa ubongo na kama vipimo ni sahihi tunaweza kuainisha kuwa ni mtindio wa ubongo.
Diagnoses are mainly on trauma or injury or damage like Brain damage due to vascular occlusion causes dg Infarctus cerebri or due to asphyxia at birth Dg brain atrophy. Usually here in Tanzania we have no facilities to give so spesific diagnoses without scanning facility but we talk only about general diagnoses like Brain damage and if findings refer we define diagnosis to be CP cerebral palsy.

Mtindio wa ubongo unakuwa na vilema vya aina mbalimbali kama matatizo katika kutembea, kutumia mikono, kutumia mikono kwa pamoja, kukosa "balance" unapokaa ikijumuisha na kukaza shingo, kuelewa mtu anachoongea au kuongea, mijongeo ya ovyo (clumsy) ya kinywa pamoja na kutoa udenda na kutafuna kwa tabu, udumavu wa akili. Aina za mtindio wa ubungo ni hemiplejia, daiplejia, tetraplejia and ataksia.
Cerebral palsy includes several disabilities like difficulty on walking, to use hands, to use hands symmetrically, to control sitting balance that includes also head control, to either understand speech or to speak, clumsy mouth including drooling and chewing difficulty, mental retardation. Types of cerebral palsy are hemiplegia, diplegia, tetraplegia and ataxia.

Kushindwa kutumia mwili na mikono na miguu vizuri na/ au kuelewa kunaweza kupelekea ulemavu kama kushindwa kujitegemea katika shughuli za kila siku: anahitaji kulishwa au kusaidiwa wakati wa kula, na hivyo hivyo kuhusiana na kuvua, kuvaa, kuoga mwenyewe, kwenda chooni n.k. Kushindwa kutembea na / au kuelewa kunaweza pelekea ulemavu kama kushindwa kwenda shule, kushindwa kucheza na watoto wengine, kukosa ajira au kuolewa/kuoa, kujitegemea n.k
Being not able to use body and limbs appropriately and/or to understand leads to handicaps like being dependant in daily activities: needs to be fed or assisted in feeding and the same concerning undressing, dressing, washing himself, toileting etc. To be unable to walk and/or understand leads to handicaps like not able to go to school, not able to socialize with other children, not able to do work or to get married, to live on his own etc.

Huduma binafsi ya utengamavu (tiba mazoezi) ni kwa lengo la kumsaidia mtu kukabili ulemavu (kilema) na ulemavu tegemezi. Kwa kiwango kidogo sana tiba mazoezi (huduma ya utengamavu) hutibu.
Individual rehabilitation is to help the person to overcome disability and handicaps. Rehabilitation is rarely healing.

Katika mpango binafsi tatizo ni kuainisha aina ya ulemavu, si uchunguzi wa kitabibu wa uharibifu kama kwa mfano mikakamao.
In individual rehabilitation plan the problem is defined disability, not medical finding of damage like for instance spasticity.

(Mfano) Mtoto wa miaka 4 mwenye mtindio wa ubongo
(Example) CP child 4 years

Tatizo 1:
The 1. problem:

Kuchelewa kwa stadi za matumizi makubwa ya misuli ya mwili na matatizo katika kutembea.
Delay of gross motor skills and difficulty in moving.

Lengo ni kuboresha stadi za misuli ya mtoto (Hivyo ulemavu unaweza kupungua taratibu kwa kuonesha majibu ya uchunguzi na mazoezi binafsi ya mtoto kama) mikakamao: Kufanya mazoezi ya kunyoosha, kurefusha na kulegeza misuli kila siku.
The aim is to improve his motor skills (Then the disability can be described in details by presenting the findings and individual exercises like) spasticity: To do stretching and relaxing exercises daily**.**

Si kwa pamoja:
- **Kutumia fremu ya kusimamia**
- **Kutumia vifaa bandia**
- **Kutumia dawa (baclofen)**
- **Kufanya mazoezi ya kiutendaji kuwezesha usawa**

Asymmetry:
- To use standing frame
- To use orthoses
- To uses medication(baclofen)
- To do functional exercises to promote symmetry

Kuchelewa:
- **Kutumia kiti maalumu, fremu ya kutembelea, vifaa bandia**
- **Kufanya shughuli za kujitemea**
- **Kutumia vifaa kama fremu ya kutembelea**

Delay:
- To use devices chair, standing frame, orthoses
- To do functional exercises
- To use devices like walking frame

Tatizo 2:
The 2. problem:

Hatumii mkono wa kushoto zaidi na matumizi ya mikono ina mijongeo ya ovyo (clumsy).
Does not use left hand much and hands use clumsy.

Lengo ni kuwezesha uwiano wa matumizi ya mikono na kuboresha stadi za mikono. Mikakamao katika mkono wa kushoto kwa mazoezi ya kurefusha na kulegeza misuli kila siku.
The aim is to promote symmetry in hand use and improve fine motor skills.
Spasticity in left hand to do stretching and relaxing exercises daily.

- **Kufanya mazoezi ya kusisimua hisia ya ndani kidogo kwenye mikono na miguu**
- **Kufanya mazoezi ya kusisimua hisia ya juu sana (kwenye ngozi) kwa kutumia vitu tofauti**
- **Kutumia kifaa bandia cha mkono wa kushoto kama splinti ya thena au kifaa bandia kama glovu na / au kifaa bandia cha kutumia usiku tu**
- **Kulazimisha mkono mmoja kutumika kwa dakika 15-20 mara mbili kwa siku**
- **Kumpa shughuli za kutumia mikono yote miwili kama shughuli za kila siku na midoli**

- To do deep sensory stimuli exercise to both arms
- To do superficial sensory exercises by different materials
- To use orthosis of left hand like thenar splint or glove like orthoses and/or night orthosis
- To do forced hand use exercises 15-20 min times twice daily
- Give bimanual tasks like ADL-activities and toys

Tatizo 3:
The 3. problem:

Kuchelewa kuongea na / au kushindwa kuongea vizuri
Delayed and /or unclear speech

Lengo ni kuboresha stadi ya lugha na kuongea vizuri.
The aim is to improve language skills and speech clarity.

- **Kukosa umakini na kutozitazama: Tumia picha kwa ratiba ya kila siku na shughuli.**
- **Maneno mepesi: Onesha na taja jina.**
- **Tumia picha kusaidia mawasiliano.**
- **Mdomo wenye mijongeo ya ovyo (clumsy) mibaya na: Udenda fanya mazoezi ya mdomo.**
- Does not concentrate and keep contact: Use pictures for daily routine and tasks.
- Vocabulary small: Do pointing and naming.
- Use pictures to support communication.

- Clumsy mouth and drooling: Do mouth exercise.

Tatizo 4:

The 4. problem:

Kuchelewa kufanya shughuli za kila siku
Delay in ADLs

Lengo ni kufanya shughuli za kila siku kadiri ya umri wake
The aim is to practise ADLs in according his age

- **Kumhamasisha kuvua, kunawa/kufua, kwenda chooni mwenyewe**
- Encouridge practising dressing, washing, toileting

MTINDIO WA UBONGO
CEREBRAL PALSY (CP)

Aina za mtindio wa ubongo ni hemiplejia, daiplejia, tetraplejia na ataksia.

Types of CP are spastic hemiplegia, spastic diplegia, spastic or dystonic tetraplegia and ataxia

Hemiplejia (ya mtindio wa ubongo)
Spastic hemiplegia

Hemiplejia ni tatizo ndogo baina ya aina za mtindio wa ubongo. Viungo vya upande mmoja wa mwili kulia au kushoto vimeathirika. Mara nyingi mikakamao ya misuli ni zaidi kwenye mkono au mguu lakini hata mkono au mguu mwingine wa upande huo huo umeathirika kidogo pia, watoto wote wa hemiplejia hujifunza kutembea. Ni watoto wachache tu wa hemiplejia wenye udumavu mkubwa wa akili wanakosa uwezo wa kujifunza kutembea. Ingawa wanauwezo wa kujifunza kutembea wanahitaji tiba mazoezi (huduma ya utengamavu) makini kuepuka madhara ya mtindio wao wa ubongo kama kukaza kwa misuli. Ingawa wanajifunza kukaa wenyewe ni muhimu sana kuwa na kiti -meza ili kuwa na ulinganifu na matumizi ya mikono miwili. Baada ya kujifunza hatua za kutembea inawezakana kuhitajika kutumia fremu ya kutembelea (kibagadu) au magongo/fimbo ili kusaidia uwiano, kukuza ulinganifu na kusimama wima vizuri wakati wa kujifunza kutembea mwenyewe. Lengo ni kupunguza pia kutokuwiana kwa mwili kutokana na urembo - jinsi mtoto mlemavu atakavyoonekana! Watoto wengi wa hemiplejia wana uwezo wa kuhudhuria shule za kawaida, Baadhi yao wana matatizo kiakili na wanahitaji elimu maalum. Baadhi yao wana matatizo ya macho au kifafa.

Spastic hemiplegia is the mildest form of CP syndromes. The limbs of one side of the body either right or left are affected. Often spasticity is more either in arm or in leg but even then the other limb on the same side is milder affected. All hemiplegia children learn to walk only severely mentally retarded hemiplegia child may not have capasity to learn to walk. Even though they are able to learn mobility skills they need intensive rehabilitation activities to avoid complications of their CP like fixed contractures. Even though they learn to sit independently it is very important to supply a chair with table to promote symmetry and bilateral hand use. After learning to step they may need walking frame or crutches to assist balance, promote symmetry and good straight upright position in learning phase. Despite of walking independently the target is to minimize asymmetry also due to cosmetic reasons- how handicapped the child is going to look out! Most hemiplegia children are able to participate normal schooling, some are retarded and need special education. Some have eye problems or epilepsy.

I Matumizi makubwa ya misuli ya mwili (A-C)
Gross motor (A-C)

A. Mazoezi ya mtoto mdogo kusaidia maendeleo katika matumizi makubwa ya misuli na usawa wa mwili.
Baby exercises to support gross motor development and symmetry.

Jinsi ya kumuongoza mtoto wako wakati wa kumtunza?
How to conduct and activate your child during careing process?

Utunzaji wa mtoto wako na kumuongoza.
Conduct and activate your child during care process.

Watoto wanahitaji ukaribu zaidi na watu wanaowatunza na kuwapatia ushirikiano mwingi ambao utawanafanya kujifunza kuwasiliana, kutambaa, kutembea wenyewe, kutumia mikono yao wenyewe na kufafanua jinsi ya ukuaji katika maisha.
The children need good contact with adults who are taking care of them and plenty of different stimulations to learn to communicate, to move and to use hands and develop emotional life.

Mpumzishe mtoto kwa kumnyoosha mwili, mikono na miguu kila siku.
Relax her/him by stretching the extremities and body every day.

Kwa:	By:
☺ **Kutumia mikao tofauti**	☺ Using different positions
☺ **Kuongea naye**	☺ Speaking with her/him
☺ **Kucheza naye**	☺ Playing with her/him
☺ **Kuimba naye**	☺ Singing to her/him
☺ **Kusoma naye**	☺ Reading to her/him

Kwa kulala milalo mbalimbali
Sleeping different positions

Umlaze mtoto kulalia milalo mbalimbali. Ubadilishe kutoka upande wa kulia na wa kushoto. Usaidie mkao wa ubavu kwa khanga kama inahitajiwa. Umweke mikono na miguu mbele.

Dhumuni ni kumsaidia mtoto kutumia viungo vyote na kuweza kugundua mkao wa katikati.

It is advisable to put the baby to sleep in different positions. Change the position from back to right and left side.

Support the position on side lying if needed by khanga. Control limbs and shoulders, forward.

The purpose is to find symmetry.

Jinsi ya kumwinua mtoto
Lifting

Umgeuze mtoto upande ambao unaouweza kumhimili na wakati huohuo mabega yakiwa yameangalia mbele. Kumbuka kubadilisha upande mwingine pia.

Turn the baby on the side and control at the same time that the shoulders are forward. Remember to lift by changing the side.

Dhumuni ni kujifunza kuhimili kichwa chake.

The purpose is to train head control.

Jinsi ya kumbeba mtoto (1-5)
Carrying positions (1-5)

1. **Kwa kumbeba mgongoni**
   Carrying on mothers back

Kumbeba mtoto mgongoni ni kuzuri kwa watoto walemavu au watoto wanaoendelea polepole. Mtoto kukaa kwenye mgongo wa mama ni kuzuri hufungua mapaja na kusaidiwa na mgongo kwa khanga. Kusaidiwa na mgongo kwa khanga hupunguza ugumu wa misuli wakati mama akitembea. ”Mtoto anakuwa kama anampanda farasi.”
Kukaa kwenye mgongo wa mama humsaidia mtoto kutumia viungo vyote urari wa mwili wake (body balance). Mgongoni mtoto anajihisi joto na salama kutokana mguso wa ngozi ya mama wakati huohuo mtoto anauangalia ulimwengu na watu wengine.

Carrying baby on mother´s back is excellent position to the child with developemental problems. Upright position hips opened wide and back supported by khanga reduces spasticity while mother is walking, baby is like ”riding mother”. It also supports symmetry and balance control of the baby. On mother´s back baby feels warm, gets good skin contact and feels safe. At the same time baby can observe outside world and other people safely.

2. **Kwa mkao wanyuma**
   Carrying on backside position

Usaidie miguu ya mtoto kukunjika na mabega na mikono kwenda mbele pamoja na kunyoosha shingo.
Support babys legs bent and assist shoulders and hands forward as well as neck to straighten (”lenghten”).

3. **Kwa kulalia tumbo**
   Carrying on the stomach position

Umsaidie mtoto alalie tumbo kwa sababu ni muhimu kuzoea kulalia tumbo.
Carry baby also on stomach position.

Ujaribu kumshika mtoto mikononi mtoto akiwa amelalia tumbo na kumbadilisha upande wa kulia na wa kushoto.
Practise to carry baby on your right side as well as your left side.

Dhumuni ni kufanya mwili unyooke pande zote vizuri.
The purpose is to find symmetrical midline.

4. **Kwa upande**
   On the side

Umshike mtoto mguu mmoja ukiwa umekunjwa, mabega na mikono ikinyooshwa mbele pamoja.
Carrying baby on the side. Arms forward and one foot bended and other extended (reciprocal position)

5. **Kwa kulalia**
   On stomach on your thighs

Paja jingine linakuwa juu ambalo litarahisisha mtoto anyanyue kichwa chake.
Your other thigh is up to lift babys head.

Kumvalisha na kumvua

Dress - Undress

Unavyomvalisha nguo mtoto nyosha mikono kwa kutetemesha leta juu katikati ya mdomo.
When you dress straighten babys hand by shaking up slightly and assist directly to the midline (to the mouth).

Umgeuze mtoto taratibu kutoka upande mmoja kwenda mwingine na umalizie kwa kumlaza kulalia tumbo.
Turn slowly baby from side to side and last on stomach position.

Lengo ni kumpa mtoto uzoefu wa kugeuka kutoka mkao mmoja kwenda mwingine.
The goal is to get baby experiences when moving from one position to another.

Kwa kumtunza kila siku unapata kumfahamu mtoto wako na kufurahia maendeleo yake.
During repeated daily caring situations by assisting and activating the child you learn to get to know your child better and you enjoy of your childs developement.

Ukunje mguu na ubadilishe nepi.

Bend the leg or legs and change the nepi

Ubadilishe nguo kwa mfano huu:
Change the dress like this:




☺ **Umsikilize mtoto**
☺ **Usimlazimishe**
☺ **Ufanye kwa uangalifu na upole**
☺ **Ufurahie kuwa pamoja**

☺ Listen to your baby
☺ Do not force
☺ Do gently with care
☺ Enjoy of being together

Kwa nini kufanya kama hivi?

Why to do like this?

Mtoto anataka mawasiliano kutembea, kutumia mikono, kuongea na kadhalika lakini kwa yeye ni vigumu kufanya kwa usahihi kwa sababu mtoto ana matatizo ya ufahamu na maendeleo yake ni ya pole pole.

Your baby wants to get contact, move, use hands, speak and so on, but has difficulties to do it in good way because of baby reflexies have not disappeared and babys developement is slow.

Mijongeo ni mikali na haiwezi kupotea kwa kua ubongo umeatrhirika.

Reflexies are stronger and do not disappear because of the brain damage.

Unamsaidia mtoto wako kwa jinsi utakavyo mbeba kwa maelekezo haya.

You can influence the situation by handling your baby just like demonstrated here.

Uwezo wa ubongo wa mtoto unanyumulika na unaweza kusaidia maendeleo yake kadiri ya ulemawu wake.

Babies brains are elastic and you can support your childs developement within the limits of her/his handicap.

B. Mazoezi ya kunyoosha, kurefusha na kulegeza misuli
Streching and relaxing

Mtoto anatakiwa kujisikia yupo salama
Child needs to feel safe and secure

- **Jaribu kumtuliza mtoto kwa kucheza naye, muanaglie machoni na tumia sauti ya upole.**
  Try to pacify the child by playing, seeking for eye to eye contact and use soft voice.

- **Mshike kwa uangalifu na upole zingatia usitumie vidole vyako tumia kiganja chako cha mkono tu.**
  Hold firmly dont do by your fingers only use your palm.

- **Tumia muda mrefu na taratibu kurefusha misuli ya mwili.**
  Use long slow stretching movement.

- **Changanya mazoezi ya kunyoosha na kurefusha misuli ya mwili kwa mazoezi ya mtoto kama vile kunyoosha na kurefusha misuli ya mkono wa mtoto wakati unavalisha nguo sehemu ya mkono huo**.
  Combine stretching to baby exercises like stretching arm while dressing a sleeve.

- **Anzia kutoka mkunjo na endelea kwenye mikono na miguu.**
  Start from flexed position and proceed to arms and legs.

- **Wakati unanyoosha na kurefusha misuli nyoosha mkono wote kuanzia kwapani mpaka vidoleni na kutoka kwenye nyonga mpaka vidole vya miguu.**
  While stretching do the whole arm from armpit til fingers and from groin til toes.

- **Mnyooshe na mrefushe misuli pia pande zote za kiwiliwili na kiuno.**
  Also stretch sides of the trunk and pelvis.

- **Usimrefushe misuli zaidi ya mjongeo wa kawaida wa viungo.**
  Dont stretch over normal joint movements.

Lengo: Kulegeza mabega, pande zote za mwili.
Ziwe sawa na kukaza shingo. Mshike mikono na msaidie kucheze michezo.
Purpose: To relax shoulders, get symmetrical midline and improve head control.

Mazoezi kwa watoto wakubwa wa hemiplejia (1-5)
Exercises to older hemiplegia child (1-5)

1. **Mazoezi ya kukaa na kunyoosha na kurefusha misuli**

   Sitting and stretching

Lengo: Kunyoosha na kurefusha vizuri misuli sehemu ya juu ya mwili na mapaja

Purpose: To get good strechthing to the upper body and thighs.

2. **Kukaa kwa kukunja na kufunga miguu:**
   Sitting legs crossed:

3. **Kukaa kwa kukunja miguu na kuweka nyayo pamoja.**
   Sitting soles together:


4. **Mazoezi ya kunyoosha na kurefusha misuli kwa kulala chini:**
   Stretching by lieing down




5. **Kusimamia ukuta, kunyoosha mikono na kiupande:**
   Standing against the wall, stretching arms and sides:


C. Mazoezi ya kiutendaji
Functional exercises

- **Mazoezi ya kukaza shingo**
  Head control
- **Mazoezi ya kugeuka**
  Turning
- **Kutambaa**
  Crawling
- **Kuamka kukaa (kutoka mlalo)**
  To get up sitting
- **Kunyanyuka**
  To get up standing
- **Kusaidia kutembea**
  To assist walking
- **Kufanya mazoezi ya uwianifu**
  To exercise symmetry

Utunzaji wa mtoto wako na kumuongoza.

Conduct and activate your child during playing.

Watoto wanahitaji ukaribu zaidi na watu ambao wanawatunza na kuwapatia ushirikiano mwingi ambao utawanafanya kujifunza kuwasiliana, kutambaa, kutembea wenyewe, kutumia mikono yao wenyewe na kufafanua jinsi ya ukuaji katika maisha.

The children need good contact with adults who are taking care of them and plenty of different stimulations to learn to communicate, to move and to use hands and develop emotional life.

Mpumzishe mtoto kwa kumnyoosha mwili, mikono na miguu kila siku.

Relax her/him by stretching the extremities and body every day.

Kwa:	By:
☺ **Kutumia mikao tofauti**	☺ Using different positions
☺ **Kuongea naye**	☺ Speaking with her/him
☺ **Kucheza naye**	☺ Playing with her/him
☺ **Kuimba naye**	☺ Singing to her/him
☺ **Kusoma naye**	☺ Reading to her/him

Mazoezi ya kwenye mto maalumu
Training on the wedge cushion

Mtoto alalie mgongo (1-2):
Child on his back (1-2):

1. Mshike mtoto juu ya mto miguu ikiwa imekunjwa dhidi ya kifua.
Hold the child on cushion legs bent

Muangalie usoni ukiwa unaongea nae
Look at his eyes, keep on talking gently.

Mguse kifuani na chezesha mikono yake kwenda juu na chini.
Touch his chest moving your hand slightly up and down.

Shika mikono yake na ibananishe na mwili wake polepole.
Hold his arms and pat by them on his body gently.

Ipeleke mikono mbele ikiwa imebanwa pamoja na inyooshe kuelekea pande zote mbili za mikono.
Move his hands forward by clapping together then straighten his arms to his sides.
Ipeleke mikono juu na chini kwa kugeuza.
Move his arms up and down by turns.

Shika mapaja.
Hold his thigh.

Kunja na kunjua miguu kwa kugeuza.
Flex and extend his legs up by turns.

Nyoosha mwili wake katikati, muangalie na ongea nae.
Look at his eyes, talk to him and straighten his body to the midline.

LENGO ni mtoto aweze kuweka mikono na kichwa katika unyoofu.
Ni rahisi mtoto kukufuatilia, kuangalia na kutumia macho na mikono kwa pamoja.

Purpose is that child is able to hold his head and hands in the middle. It is possible to the child to be in contact, look at you and use eyes and hand together.

2. **Iweke mikono ya mtoto kwenye miguu, kunja na refusha miguu juu na chini kwa kumgeuza. Umbembeze mtoto kutoka upande mmoja na mwingine huku ukimuangalia machoni.**

Bring the child´s hands to his feet, flex and straighten legs up and down by turns.
Swing him gently from side to side looking at his eyes at the same time.

Lengo: Kusisimua misuli ya mbele iwe katika hali yake.
Kumwezesha kugeuka.

Purpose: To activate his frontside muscles in the middle
To assist turning.

Mtoto alalie tumbo (1-3):
Child on stomach (1-3):

1. **Mgeuze mtoto upande wa kulia ukiwa unamuangalia machoni.**

   Move child to right side and peep (have a look) at him at the same time.

   Lengo: Mtoto aweke uzito pande zote na aweze kutambaa.

   Purpose: To practise holding weight on both side and to crawl.

2. **Tikisa juu mkono vizuri au mikono vizuri na nyoosha mikono, fungua vidole na msaidie kuongeza uzito mikononi.**

   Shake up tenderely hand/hands and straighten arms, open fingers too and help him to support weight on arms.

   Lengo: Kulegeza mabega, pande zote za mwili. Ziwe sawa na kukaza shingo. Mshike mikono na msaidie kuchezea michezo.

   Purpose: To relax shoulders, get symmetrical midline and improve head control Helps him to support hands and play by toys

3. **Usaidie mikono ya mtoto kufikia michezo/ midoli na kuhamisha midoli upande mmoja kwenda mwingine.**

   Conduct child support on hands, to reach out for toys. Move the place of the toy from side to side.

   Lengo: Kubadilisha uzito wa upande mmoja na mwingine. Umsaidie kutumia mkono mmoja kwa wakati na kujifunza kutambaa.

   Purpose: Child must change the weight from side to side. Helps him/her to use one hand at the time and learn to crawl.

Mazoezi ya kutambaa (1-5)
Crawling (1-5)

1. **Kaa kama picha inavyoonesha mtoto mbele yako miguu imekunjika upande mmoja. Uzungushe mwili kuelekea upande mmoja.**

   Sit as in picture child in front of you sitting legs bent to the side, body rotates. Change the side.

   Lengo: Kurefusha misuli ya mapaja, kugeuka na kukaza mwili.

   Purpose: To straighten muscles of hips, activate rotarion and body control.

Mkao huu unamuwezesha mtoto kuinamia kwenye mapaja akiwa amekalia tako moja.

From position above help the child to lean on your thigh still sitting on one buttock.

2. **Msaidie akae mkao wa kutambaa kwenye mapaja yako. Msaidie na umchezeshe kwenda nyuma na mbele kwa kutumia mapaja yako.**

   Assist him to crawling position on your thigh.
   Support and swing him by your thigh.

Msaidie akuangalie machoni kwa kubadilisha uzito wa upande mwingine

Assist him to peep at your eyes by changing weight on his opposite side.

3. **Anapotambaa msaidie kwa kumshika mikononi.**

   While crawling activate him to support weight on arms.

4. **Kuinua tumbo, mshike polepole kwa mkono.**

   To keep belly up, tap it gently by your arm.

5. **Msaidie kuweka uzito upande mmoja na mkono mwingine kupeleka mbele.**

   Assist him to support weight on other side and reach by other arm.

Mazoezi ya kutoka mkao wakutambaa kwenda kukaa

From crawling to sit

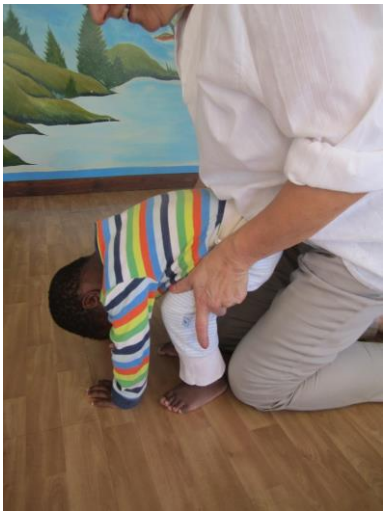
Fanya kama picha inavyoonesha:
Kutoka mkao wa kutambaa kwenda kukaa.

Do like the picture: From crawling to sitting like here.

Mazoezi ya kuweka uzito kwenye miguu na mikono

Weight bearing on feet and arms

Kaa ukiwa umekunja nyonga na miguu.
Sitting hips and legs flexed



Msaidie kuinamia mbele na kuweka uzito kwenye mikono.
Assist him to lean forward and support weight on arms

Mazoezi ya kuwa au kutembea kama dubu
Exercise to be or walk on the teddybear position

Mazoezi kwa watoto wakubwa wa hemiplejia:
Exercises to older hemiplegia child:

1. Mazoezi ya kusimama kwa msaada (1-2)
To get up standing assisted

Kaa ukiwa umekunja nyonga na miguu.
Sitting hips and legs flexed.

Weka mchezo/mdoli juu ya kiti. Tumia mwili wako kumsaidia mtoto ainamie mbele wakati huohuo afuate mchezo/mdoli kwa mikono na umsaidie kuweka uzito kwenye kiti.

Place a toy on the chair.
Use your own body to assist him to lean forward at the same time reaching the toy and supporting his weight on the chair.

Msaidie asimame kwa kumuinua taratibu kutoka mapaja, makalio, miguu kwenye sakafu.

Assist him to get up standing by lifting him gently from thighs and buttocks, feet on the floor.

2. Mazoezi ya kusimama kwa msaada
To get up standing assisted

Msaidie mtoto kunyanyuka kwa magoti kiuno kikiwa kimenyooka.

Assist the child to get up standing on the knees hips extended.

Msaidie mtoto kuweka uzito kwenye goti lingine wakati ananyanyua goti lingine limekunja kwa mbele (angalia picha.)

Assist the child to bear weight on other knee while the other leg is in front flexed (see picture).

- **Fanya kuchezesha mbele na nyuma au upande pole pole kunyoosha na kurefusha misuli, kuweka uzito chini ya kisigino.**
  Conduct swinging movements for a while to stretch, weight bearing heel down.

- **Fanya pande zote.**
  Do both sides.

- **Baadaye msaidie mtoto kusimama kwa kujisaidia mwenyewe kwa mguu mmoja. Mkao wa kusimama ili visigino viwe chini, magoti na kiuno vimenyooka.**
  Later assist the child to process to standing by helping himself by one leg. Standing position so that heels are down, knees and hips are straight.

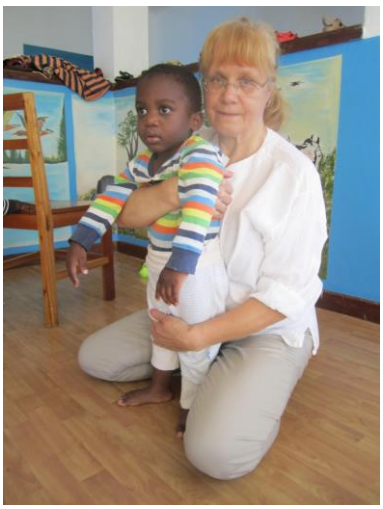
- **Fanya mazoezi kwa kubadilisha uzito kutoka upande mmoja kwenda mwingine kwa kusimama.**
  Practise by changing weight from one side to other in standing.

- **Pia msaidie mtoto kurudi taratibu kutoka kusimama mpaka kupiga magoti (kusimamia magoti).**
  Also assist the child to reverse slowly from standing up to standing on knees.

MAZOEZI YA KUSIMAMA

Njia mbalimbali za kufanya mazoezi ya urari (balance): Katika kusimama

Different ways to practice standing balance:



Mazoezi ya kutembea

Exercises to assist walking

Njia ya kumsaidia mtoto kutembea:
Simama nyuma ya mtoto. Tumia mikono yako kushika mwili wa mtoto na kumgeuza polepole kutoka upande mmoja na mwingine. Wakati huohuo msaidie kupiga hatua kwa miguu yako, kama inahitajika.

You stand behind the child.
Use your hands by holding his body from sides and turn gently and slowly the weight from side to side. At the same time assist stepping by your own legs if needed.

Kwa nini kufanya kama hivi?

Why to do like this.

Mtoto anataka mawasiliano, kutembea, kutumia mikono, kuongea na kadhalika lakini kwa yeye ni vigumu kufanya kwa usahihi kwa sababu mtoto ana matatizo ya ufahamu na maendeleo yake ni ya pole pole.

Your child wants to get contact, move, use hands, speak and so on, but has difficulties to do it in good way because of baby reflexies have not disappeared and childs developement is slow.

Mijongeo ni mikali na haiwezi kupotea kwa kuwa ubongo umeathirika.

Reflexies are stronger and do not disappear because of the brain damage.

Unamsaidia mtoto wako kwa jinsi utakavyo mbeba kwa maelekezo haya.

You can influence the situation by handling your child just like demonstrated here.

Uwezo wa ubongo wa mtoto unanyumbulika na unaweza kusaidia maendeleo yake kadiri ya ulemawu wake.

Babys brains are elastic and you can support your childs developement within the limits of her/his handicap.

II Hisia
Sensory

Kusisimua hisia za mwili za kina kwa kusaidia kuweka uzito kwenye mkono ulioathirika
Deep sensory stimuli supporting weight to affected arm

Uchochezi wa hisia za ngozi
Superficial sensory stimuli

- **Wakati wa umri wa mtoto mdogo, fungua mkono wake kwa uangalifu, nyoosha vidole na sugua viganja na vidole wakati mama akiongea na mtoto na huku mtoto akiwa amempakata.**
  At baby age gently open hand, stretch fingers and rub palms and fingers while socializing with mama baby on her lap.

- **Akiwa na umri wa mkubwa, unaweza kutumia mafuta ya mgando, mchanga na vitu vingine vya kuchochea hisia, lakini fuata jinsi mtoto anavyoonesha hisia: kama mtoto analia na kuonekana kuogopa, acha na unaweza kujaribu tena baadaye.**
  When older you may use grease, sand and other sensory stimuliting materials but follow childs response: if child is screaming and feels horrified, stop and you may try again later.

- **Mazoezi ya vestibula, kubembea, kuviringika chini**
  Vestibular exercises swinging, rolling

III Matumizi ya misuli ya mikono
Fine motor

Matumizi makubwa ya misuli ya mwili husaidia uwiano
Gross motor functional exercises to support symmetry

- **Kwa kumsaidia mtoto katika mkao wa kulala na kukaa, mwili na viungo viwe katikati wakati wa kumbeba au kwenye godoro au kiti ni muhimu kwa mtoto kumsaidia kutumia mikono.**
  To find midline and cross midline prepare for symmetrical hand use

- **Uratibu wa macho-mikono ni muhimu kwa kuhusishwa mikono: pale mtoto anapoona kitu kipendezacho hupendelea kukishika.**
  Eye-hand coordination necessary for relevant hand use: when the child sees something interesting he likes to grip it.

- **Ndiyo sababu ni muhimu kwanza kumsaisida mtoto kwa nafasi nzuri akiwa amepakatwa na mama yake.**
  That is why it is necessary at first to assist a good functional position on mother`s lap or in a seat.

- **Kila mara umpe mtoto doli au chakula katikati mbele ili aweze kuchukua.**
  Always give a toy or piece of food in front midline for the child to take.

- **Pia mpe mtoto vitu vikubwa kama vile mpira wenye ukubwa wa kipenyo cha cm 10, kumsaidia mtoto kupanua mikono yote, kufumbua vidole, piga mpira kwa viganja na kuuzungusha. Mpira uliotengenezwa kienyeji kwa nguo au makaratasi unafaa.**
  Give also big object like a 10cm ball, assist the child to extend both hand, open fingers, pat the ball and roll it. If no commercial ball local ball made from rags is good.
  .
- **Akiwa amesismama kwenye fremu, au amekaa kwenye kiti, weka vifaa vifaavyo, midoli au vyakula kama vile matunda kwenye beseni.**
  While child is standing in frame or sitting in chair put suitable things toys or food like pieces of fruit on a tray.

- **Saidia kushika kwa mikono miwili wakati wa kunywa kwa kutumia bilauri.**
  Assist two hand grip while drinking using mug.

- **Njia ya kulazimisha kutumia mkono: funga mkono usioathirika kwa soksi au glovuzi na hamasisha kuutumia mkono wenye hemiplejia, fanya hivyo kwa muda mfupi mara nyingi kwa siku.**
  Forced hand use method: tie the healthy hand by sock or glove and use hemi hand do it short time many times per day.

- **Ukiwa unasaidia mkono wa hemiplejia shika mwanzoni mwa kiungo kuanzia kwenye bega na mikono, usiguse mikono na vidole.**
  While assisting hemi hand use proximal grip starting from shoulder and arm dont touch hand and fingers.

IV Vifaa
Devices

Vifaa vinanyohitajika, angalia ukurasa 122.
Devices all on demand, see page 122.

- **Mito maalumu ya mazoezi kwa watoto**
  Wedge cushion to babies
- **Wote wanahitaji kiti- meza (postural)**
  All need postural chair with table
- **Manufaa karibu yote yanayotokana na fremu ya kusimamia kama tiba mazoezi (huduma ya utengemavu) imeanza kabla ya umri wa kutembea Manufaa karibu yote yanayotokana na fremu ya kusimamia kama matibabu yameanza kabla ya umri wa kutembea.**
  Most benefit from standing frame if rehabilitation started before walking age.
- **Viatu maalumu**
  Supporting shoes
- **Vifaa bandia vya matumizi ya mchana badili kwa viatu vya miguuni vya kitaalamu, kama vinahitajika.**
  If needed day orthosis to replace orthopedic shoes.
- **Vifaa bandia vya usiku kama vinahitajika.**
  If needed night orthosis.
- **Splinti ya kidole gumba**
  Thumb splint
- **Splinti ya mkono inayoweza kutumika mchana, splinti ya mkono kwa matumizi ya usiku**
  Wrist splint active for day use, passive for night use
- **Kamba nene ya mpira (mpira wa nguo kama wa chupi) kwa mkono au mguu kuondoa /kupunguza hali ya mkono/mguu kuelekea ndani**
  Rotator arm, leg to eliminate /reduce pronation tendency
- **Nguo kwa mkono au shati ya lycra (nguo maalum) kutumia kama kamba nene ya kuvutika kama mpira kusaidia kurekebisha mikao mibaya ya mkono (kiganja kuwa nje).**
- Lycra sleeve or shirt to assist supination.

V **Kuongea**
Speech

Angalia ukurasa 134.
See page 134.

VI **Matatizo katika ulishaji**
Feeding problems

Angalia ukurasa 163.
See page 163.

DAIPLEJIA
SPASTIC DIPLEGIA

Katika daiplejia miguu yote inaathirika. Mara nyingi mikono inaathirika kidogo pia. Mara nyingi hakuna ulingano wa viungo kwamba mguu mwingine una mikakamao zaidi kuliko mwingine. Wakati mwingine kuna mchanganyiko wa daiplejia na hemiplejia na tunaweza kuuita traiplejia. Daiplejia inaweza kuwa ndogo, ya wastani au kali. Watoto wote walio na daiplejia ndogo wanajifunza kutembea. kwa wenye daiplejia ya wastani wengi wao hujifunza kutembea kwa shida au kwa kutumia magongo/fimbo au kwa kutumia fremu za kutembelea. Baadhi hutembea wenyewe kwa kutegemea ukuta na fanicha wakiwa ndani, ila huhitaji vifaa au vitu vya kuwasaidia kutembea wakiwa nje, na wengine huhitaji hata viti mwendo. Katika daiplejia kali tunawawezesha kupiga hatua kwa msaada kusaidia katika shughuli za kila siku kwa mfano kwenda msalani kujisaidia au kuweka uzito wakati wa kunawa au kuoga. wengi wao huhitaji viti mwendo hata ndani na wanajifunza kuwa na uhuru wa kujisogeza kutoka sehemu moja kwenda nyingine na katika shughuli zao za kila siku ikiwa matumizi ya mikono ni mazuri. Watoto wote wenye daiplejia wanahitaji shughuli makini ya tiba mazoezi na vifaa, tiba mazoezi inatakiwa kuendelea hadi umri wa ukubwa ili kuongeza uwezo wao wa kufanya kazi na kupunguza matatizo kama vile ya kukaza kwa misuli. Wengi wao wanamakengeza na matatizo ya kutoona vizuri. Mara nyingi wanauwezo wa kawaida na wanatakiwa kwenda kusoma katika shule za kawaida ingawa wanatumia vifaa visaidizi. Baadhi wana udumavu wa akili na wanahitaji elimu maalumu, na baadhi wana kifafa.

In spastic diplegia both legs are affected. Often arms are milder affected. Often their is asymmetry so that the other leg is more spastic than the other. Sometimes there is like diplegia and hemiplegia combined and we can also call it triplegia. Diplegia is mild, moderate or severe. All children suffering from mild diplegia will learn to walk, in moderate diplegia many children learn to walk with difficulty or by using crutches or walking frame. Some walk by supporting themselves with walls and furniture inside but need device while moving outside some even a wheelchair. In severe diplegia we promote assisted stepping to help in daily activities like for instance moving to toilet or support weight while washing. Many need even inside wheelchair and they learn often to be quite independent in mobility and daily activities as the hands are useful. All diplegia children need intensive rehabilitation activities and devices and rehabilitation should continue until adulthood to maximize their functional capacity and avoid complications like fixed contractures. Many have squint and vision problems. Often they have normal capasity and should go to normal school despite of devices. Some are mentally retarded and need special education. Some have epilepsy.

I Matumizi makubwa ya misuli ya mwili
Gross motor

Kama mazoezi ya watoto wa hemiplejia, angalia ukurasa 15.
Like child spastic hemiplegia, see page 15.

A. Mazoezi kwa watoto
Baby exercises

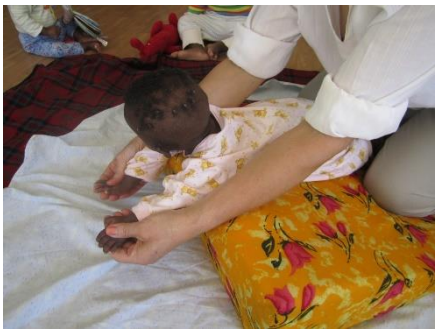
B. Mazoezi ya kunyoosha, kurefusha na kulegeza misuli
Stretching and relaxing

Mtoto anatakiwa kujisikia yupo salama.
Child needs to feel safe and secure.

- **Jaribu kumtuliza mtoto kwa kumpa michezo au kucheza naye, muangalie machoni na tumia sauti ya upole.**
  Try to pacify the child by playing, seeking for eye to eye contact and use soft voice.

- **Mshike kwa uangalifu na upole zingatia usitumie vidole vyako tumia viganja vyako vya mikono tu.**
  Hold firmly dont do by your fingers only use your palms.

- **Tumia muda mrefu na nyoosha na refusha misuli kwa taratibu.**
  Use long slow stretching movement.



- **Chanaganya mazoezi ya kunyoosha na kurefusha misuli kwa mtoto kama vile kumnyoosha mkono wakati unamvalisha nguo sehemu ya mkono wa nguo.**
  Combine stretching to baby exercises like stretching arm while dressing a sleeve.

- **Anzia kutoka sehemu yenye mkunjo na endelea kwenye mikono na miguu.**
  Start from flexed position and proceed to arms and legs.

- **Wakati unarefusha misuli mnyooshe mkono wote kuanzia kwapani mpaka vidoleni na kwenye nyonga vidole vya miguu.**
  While stretching do the whole arm from armpit til fingers and from groin til toes.

- **Mnyooshe pia upande wa mwili na kiuno.**
  Also stretch sides of the trunk and pelvis.

- **Usimnyoonyeshe zaidi ya muenendo wa kawaida wa viungo.**
  Dont stretch over normal joint movements.








C. Mazoezi ya kiutendaji
Functional exercises

- **Kudhibiti kichwa**
  Head control
- **Kupindua**
  Turning
- **Kutambaa**
  Crawling
- **Kukaa kwa kuamka (kutoka mlalo)**
  To get up sitting
- **Kusimama kwa kutegemea mguu mmoja, fanya mazoezi kwa kila mguu**
  To get up standing exerting one leg, exercise both sides
- **Kusaidia uwianifu wa mwili na viungo**
  To promote symmetry
- **Kuanza kujifunza kutembea hakutakiwi kuanza mapema kwa watoto wenye diplejia, kutaongeza udhaifu.**
  To start practising walking should not be started too early with diplegia children, it may increase spasticity.
- **Kujifunza kusimama kwa visaidizi na mazoezi ya urari na ulinganifu na kusimama kutumia fremu mwanzoni ni kuzuri.**
  To practise assisted standing and exercising balance and symmetry and standing in frame is better at first.

- **Dawa ya baclofen inaweza kusaidia kama udhaifu ni mkali.**
  Baclofen might help to function if spasticity is severe.

Kama mazoezi ya watoto wa spastic hemiplejia, angalia ukurasa 28.
See exercises for hemiplegia child, see page 28.

II Hisia
Sensory

Kusisimua hisia kwa kina kwa kuweka uzito mikononi na kusimama kwenye fremu
Deep sensory stimuli supporting weight to arms and weight bearing

Kusisimua hisia kwa juu juu kama kwenye ngozi
Superficial sensory stimuli

Kwa umri wa mtoto mdogo, kanda /sugua kwa upole na uangalifu wakati wa mazoezi ya kunyoosha na kurefusha misuli mama akiwa anacheza na mtoto wake na wanawasiliana wakati wote.
At baby age gently rub while stretching while socializing with mama.

- **Akiwa na umri wa ukubwa, unaweza kutumia mafuta ya mgando, mchanga au vitu vingine vya kusisimua hisia, kama vile brashi, lakini fuata jinsi mtoto anavyoonesha hisia: kama mtoto analia na kuonekana kuogopa, acha na unaweza kujaribu tena baadaye kumuacha ili aweze kuvumilia taratibu mazoezi ya kusisimua hisia.**
  When older you may use grease, sand or other sensory stimuliting materials like brush but follow childs response: if child is screaming and looks horrified, stop and you may try later again getting him gradually to tolerate stimuli.

- **Mazoezi ya vestibula ya kumbembesha, kumviringisha na kumbeba mgongoni mwa mama ni mazuri sana kwa kupunguza kutokuwiana kwa mwili.**
- Vestibular exercises swinging, rolling, carrying on mothers back is excellent vestibular exercise.

III Matumizi ya misuli ya mikono
Fine motor

Mara nyingi kutokuwiana kwa mikono, kwa hiyo mazoezi yote ya watoto wa hemiplejia yanafaa.
Often asymmetry of hands so all exercises of hemi children are suitable.

Watoto wa daiplejia mara nyingi wana mijongeo ya ovyo ya mikono (clumsiness) na hawawezi kutumia mikono vizuri.
Diplegia children have often mild spasticity and clumsiness of hands.

Mikakamao ya misuli ya mikono huongezeka hasa kama mkao si mzuri. Kwa hiyo tafuta mkao mzuri unaofaa kwa kupakatwa na mama na kukaa kwenye kiti maalumu (postural) kwa maana kwamba mgongo umenyooka, nyonga imepindwa na nyayo zinagusa sakafu au ubao wa kiti, kukaa kwa mkao nusu kunaweza kusaidia kunyooka kwa mgongo, magoti yamekunjwa na miguu kwenye sehemu ya kuwekea miguu.
Tonus increase of hands is especially sensitive to position so find good functional sitting position on mother`s lap and sitting in postural chair meaning that back is straight, hips flexed, mild minus sitting may help back to straighten, knees are flexed, feet on foot rest.

- **Tumia meza akiwa amesimama kwenye fremu au kukaa kwenye kiti maalum na afanye shuguli za kutumia mikono.**
  Use table while standing in frame or sitting in chair then do hand function tasks.

- **Weka vifaa au vitu vya kuvutia kama vile midoli au vipande vya chakula kwenye meza au mpe kwa katikati kwa mbele yake.**
  Put interesting objects like toys or pieces of food on table or give it to him in front midline.

- M**ijongeo ya taratibu na uangalifu huzuia kuongezeka kwa mikakamao ya misuli mikono wakati wa kubadilisha mkao.**
  Peaceful slow movements prevent increase of spasticity of hands while changing position.

- **Upanuaji wa miguu wakati wa kukaa au kusimama hupunguza mikakamao ya misuli ya mikono.**
  Abduction of hips while sitting or standing reduces spasticity of hands.

- **Ukiwa unasaidia matumizi ya mikono shika mkono kwa chini yanapoanzia mabega na mikono si kiganja cha mkono au vidole.**
  While assisting hands use proximal grip shoulders and arms not hands or fingers.

- **Angalia na rekebisha mkao wa kichwa wakati wa mazoezi kwa kuhakikisha mtoto anaweza kuangalia anapotumia mikono na anafuatia kwa macho.**
  Check and correct position of head during exercises to guarantee eye hand coordination and following by eyes.

IV Vifaa
Devices

Angalia ukurasa 122.
See page 122.

- **Mto maalumu wa mazoezi kwa watoto**
  Wedge cushion to babies

- **Katika umri wa utoto akae mara nyingi kwanza kwenye kiti kona baadaye inawezekana kwenye kiti kingine maalumu (postural), viti vyote viwe na meza.**
  Seat often corner chair at baby age, postural chair next chair both with table.

- **Fremu ya kusimamia na meza**
  Standing frame with table

- **Viatu maalumu au vifaa bandia**
  Supporting shoes or orthoses

- **Vifaa bandia vya usiku**
  Night orthoses

- **Chuma cha kupanua miguu kwa kutumia kiti maalumu ”postural ”pale kinapohitajika**
  Abductor for hips in postural chair if needed

- **Vifaa bandia vya kidole gumba, au mkono tu pale inapohitajika**
  Orthoses for thumb, or arm only if needed

- **Kamba nene ya mpira ya mguuni ili kurekebisha mkao mbaya wa miguu pale inapohitajika**
  Rotators for legs if needed

- **Nguo ya kuvutika ya " lycra " inayobana inaweza kusaidi kama mwili umelegea, mgongo unalegea kwa udhaifu.**
  Lycrabody may help if trunk is hypotonic, back extension week.

- **Toroli mwendo, magongo, fremu ya kutembelea**
  For walking trolley, crutches, frame on demand

- **Kiti mwendo kinapohitajika**
  Wheelchair on demand

V Kuongea
Speech

Angalia ukurasa 134.
See page 134.

VI Matatizo katika ulishaji
Feeding problems

Angalia ukurasa 163.
See page 163.

Tetraplejia, yenye mikakamao au isio na mikakamao

Tetraplegia spastic or dystonic

Tetraplejia ni tatizo kali sana la mtindio wa ubongo. Katika tetraplejia ya mikakamao misuli ina mikakamao mikali na inakaza na katika tetraplejia isio na mikakamao kuna mikakamao inayopanda na kulegea. Mwili mzima umeathirika. Dalili za mwanzo za tetraplejia kulinganisha na aina nyingine za mtindio mdogo wa ubongo: ni shingo kulegea ambayo huacha ingawa kwa mazoezi. Uso pia umeathirika, mara nyingi wanamakengeza na hawaoni vizuri, mdomo upo wazi na kutoa udenda, ni vigumu kumeza, na matatizo zaidi ya kutamka maneno. Udumavu wa akili upo kwa watoto wengi, Madhara kama ya misuli ya viungo kukaza na kupindia pembeni kwa mgongo hujitokeza mapema kama hakusaidiwa katika mkao mzuri, vifaa na mazoezi. Utapiamlo ni kawaida na matatizo ya ulaji. Homa ya kifua cha mara kwa mara ni tishio na hasa njia ya ulishaji ikiwa mbaya husababisha kupaliwa mara kwa mara. Wengi wao wana kifafa.

Tetraplegia is the most severe CP syndrome. In spastic form the muscles are very spastic stiff and in dystonic form there is dyskinesia, mucle tonus fluctuates from increased to very floppy. Whole body is affected. The earliest sign of developing tetraplegia compared to other milder CP: s is poor head control that lasts despite of activities. Also face is affected, often squint and low vision, mouth is open with drooling, difficulty in swallowing, severe difficulty in uttering words. Mental retardation is common. Complications like fixed contractures of joints and scoliosis start developing early unless helped by positioning, devices and exercises. Malnutrition is common with feeding problems. Repeated chest infections threaten especially if feeding is done in wrong way causing repeated aspiration. Many have epilepsy.

Hata hivyo wengi wao wana akili za kutosha kunufaika na shughuli za tiba mazoezi (huduma ya utengamavu) na vifaa, wana uwezo wa kijifunza kutumia mikono yao au hata kidole kimoja kwa mawasiliano kwa kuonesha vitu na picha bila kutumia maneno na kucheza kidogo. kujielezea hisia zao angalau kukubali au kukataa. wengi hunufaika zaidi kiutendaji kwa vifaa. Watoto wenye tetraplejia hawawezi kujifunza kutembea au kufanya shughuli za kila siku wenyewe lakini kupiga hatua kwa msaada inabidi zifanywe kwa ajili ya kujifurahisha, kuchezesha mwili na kusaidia katika shughuli za kawaida za kila siku. Ni rahisi kumtembeza mtoto kwa msaada kwa hatua chache wakati huo huo kuhamia kutoka kwenye kiti kwenda kitandani kuliko kwa kumbeba wakati mtoto amekuwa mzito. Watoto wote wenye tetraplejia wanahitaji tiba mazoezi (huduma ya utengamavu) na vifaa kwa maisha yao yote, wote wanahitaji viti mwendo.

Still some who have intelligence enough to benefit rehabilitation activities and devices may learn to use their hand or even one finger to communicate by pointing things and pictures if no words and to play a little, express at least acceptance and dislike. Many benefit much functionally about devices. Tetraplegia children are not able to learn to walk or do daily activities independently but assisted stepping should be practised for fun, mobility of the body and to help in daily activities. It is easier to assist supporting weight and by a few steps while moving from chair to bed than by lifting when child is getting heavy. All tetraplegia children need lifelong rehabilitation activities and devices, all need a wheelchair.

I Matumizi makubwa ya misuli ya mwili
Gross motor

A. Mazoezi ya mtoto mdogo kumsaidia katika kukua kwa matumizi makubwa ya misuli ya mwili na usawa yanaweza kuwa kwa maisha yote!
Baby exercises to support gross motor development and symmetry, may continue throughout his life!

Kama mazoezi ya watoto wa spastic hemiplejia, angalia ukurasa 15.
See exercises for hemiplegia child, see page 15.

B. Mazoezi ya kunyoosha na kurefusha na kulegeza misuli
Stretching and relaxing

Watoto wenye tetraplejia yenye mikakamao wanahitaji zaidi mazoezi ya kunyoosha na kurefusha na kulegeza misuli na kuna faida kutoka dawa ya "baclofen".
Spastic tetras need a lot of stretching and relaxing and may benefit from baclofen.

Watoto wenye tetraplejia ya kulegea wanaweza kulegea sana kwamba wasifanyiwe mazoezi ya kurefusha misuli kabisa isipokuwa wanakuwa na tishio la kukaza kwa misuli kutokana na kutoweza kutembea.
Dystonic tetras may be so floppy that they should not be stretched at all unless they have threatening contractures due to immobility.

Toni ya misuli ya watoto wa tetraplejia ya kulegea huongezeka kwa kirahisi kutokana na hofu, kama zimepata mshtuko wa ghafla, hisia zozote zisizo nzuri au hata msisimko au furaha! Bado toni inakua ya kawaida kwa kulegeza kihisia, epuka mijongeo ya haraka isiyotarajiwa wakati wa kubadilisha mkao, tafuta njia na mkao mzuri ufaao kiutendaji. Mikakamao ya misuli inapungua kama mtoto anatulia.
Dystonic tetras tonus increases easily due to fear, if they get sudden surprises, any unpleasant feeling or even excitement and joy! Still tonus normalizes by relaxing emotionally, avoiding sudden unexpected movements while changing position, finding good most functional positi

Watoto wenye tetraplejia wanahisia kali na mikao kwa kuwaacha kwenye zulia (mkeka/godoro) kwa muda mrefu au kwa kumuweka vibaya. Kwa mfano, mkao mzuri na ufaao wa ulishaji na njia sahihi ya ulishaji ni muhimu, vinginevyo kutasababisha kichwa kuelemea nyuma mno, ulimi kutoka nje na kubinukia mbele zaidi na kujipalia. Vifaa vyote viwe vimeundwa vizuri kwa ajli yao na si vikubwa sana au vidogo sana. Bado kunahitajika kubadili mikao mara kadhaa kila siku.

Tetras are very sensitive to positioning either by leaving them on mat for too log periods or positioning in wrong way. For example a good feeding position and the right feeding method is important, otherwise it leads to overextension, tongue protrusion and aspiration. All devices should be well designed for them and not too big or too small. Still there is need to change the position several times daily.

- **Nyoosha mwili wote kila siku, tumia kujigeuza pande zote za mwili, ajikunje, na tumia mto maalumu wa mazoezi juu ya tumbo.**
  Stretch thorax, trunk and pelvis daily, use body rotation, bending and using wedge cushion to lye on belly.

- **Daima shughulika na mtoto kwa upole na taratibu kwamba mtoto ajisikie salama.**
  Handle always gently and slowly that child feels safe and secure.

- **Epuka kutumia sauti kali sana.**
  Avoid too loud voice.

C. Mazoezi ya kiutendaji ya mwili
Functional exercises

Endelea kufanya mazoezi ya kiutendaji kwa mtoto kama ya kukaza shingo, kugeuka, kukaa kwa msaada na kusimama wima hata kama haioneshi mafanikio hii itakuwa mpango kwa maisha yote!
Continue baby functional exercises like head control, turning, assisting to sitting and standing position even though no progress seen this might be life long plan!

Wazazi wapate hatua kwa hatua maelezo ya kweli kuhusu hali halisi: hatutakiwi kutegemea kuwa mtoto atapata maendeleo katika stadi za matumizi ya misuli mikubwa lakini mazoezi yote haya yanafanya mijongeo ya mwili, kuwa na usawa zaidi, na rahisi kusaidia katika shughuli za kila siku, kuzuia misuli ya miguu na mikono kukaza kuzuia misuli na baadaye kuzuia maumivu ya viungo kabla hujaanza kutumia vifaa bandia. Shughuli hizi zote hufanyika kwa ushirikiano mzuri na mtoto na iwe kwa kujifurahisha! Kama wengine hucheza na kukimbia mtoto mwenye ulemavu mkali zaidi hufurahia kuwa pamoja ingawa kwamba hawezi kuchangia zaidi.
Parents should get gradually realistic information about the situation: we may not expect the child to progress in gross motor skills but all these exercises keep the body mobile, more symmetric, easier to assist in daily activities, prevents contractures and prevents muscle and later joint pains due to premature arthrosis. All these activities done in good cooperation with the child should be fun! Like others run and play severely handicapped child enjoys his motor activities even though he is not able to contribute much.

Kila mmoja anawekwa kukaa kwenye kiti na kusimama kwenye fremu.
Everybody is taken to seat and to standing in frame.

- **Anza mazoezi ya kupumua isipokuwa kwa mkao mzuri na pia kwa kupuliza manyoya, vipande vya karatasi na chupa mwanzoni wakati kuna ushirikiano mzuri.**
  Start breathing exercises except by positioning also by blowing feathers, paper strips and to bottle as early as there is cooperation.

II Hisia
Sensory

Kusisimua hisia kwa kina kama vili vile wengine wenye mitindio wa ubongo kama kusaidia uzito kwa mikono na kusimama kwenye fremu ya kusimamia.
Deep sensory stimuli given the same way like in other CPs like supporting weight to arms and standing in standing frame.

- **Kusisimua hisia kwa juu kama za ngozi: sugua kwa upole mwili mzima, vifaa vingine vigumu vyenye kutengeneza hisia kwa nguvu kama vile mchanga na brashi, fuatilia mtoto anavyojihisi: kama ataogopa acha na ujaribu tena baadaye.**
  Superficial sensory stimuli: rubbing gently the whole body
  other more harsh sensory materials like sand and brushing follow carefully childs response: if he panics stop and you may try later.

- **Mazoezi ya kusisimua vestibula, kujibembeza na kujiviringisha, kumbeba mgongoni ni kuzuri.**
  Vestibular stimuli swinging and rolling, carrying on mother`s back is good.

III Matumizi ya misuli ya mikono
Fine motor

Ingawa stadi za matumizi ya mikono ni ngumu sana inawezekana kuwa ni uwezo pekee wa kuutumia aliokuwa nao anaoweza kujifunza.

Even though very difficult hand function skills might be the only independant functional skill he may be able to learn.

Hoja ya muhimu ni kwamba mkao wa kukaa unafanyika kama utendaji unawezekana. Tumia kiti- kona ambacho kirefu kwa nyuma sehemu ya kuegemea mgongo ili kusaidia pande za kichwa, ni vizuri ubao uwe laini. Meza inatakiwa, magoti yakiwa yamekunjwa na mapaja yamefunguliwa kidogo miguu iwe juu ya sehemu ya kuwekea miguu. Kwa tatizo kali sana lazia kiti nyuma kidogo, Kiti chote kina manufaa. Hakikisha shingo ipo wima na ndefu kadiri iwezekanavyo katikati ili kufanya uwezekano wa mawasiliano ya macho kwa macho, jicho kwenye kitu na kuweza kufuatiliwa kwa macho, Mpe vifaa vifaavyo kwa kuchezea kwenye meza.

Key point is that sitting position is done as functional as possible: use corner chair with long back to support head from sides, soften well. Table is needed, knees flexed and thighs in mild abduction feet on foot rest. In most severe situations mild tilting of the whole chair is useful. Check the neck to be as straight and long as possible in midline to make eye to eye contact, eye to object and following by eyes possible. Give suitable toys on the tray.

Saidia shughuli za mikono kusukuma au kugusa au kushika kifaa cha kuchezea, hata kwa kuonesha kwa kidole inatosha. Hii inaweza kusababisha njia mbadala ya mawasiliano kama kuonesha picha au vitu kwa mwanzo. Kwa kawaida mtoto hawezi tumia kidole kimoja tu, wakati mwingine unaweza kumpa kifaa bandia kinachofunga ngumi na kuacha kidole kimoja kimsaidie kuonesha kwa kidole.

Assist hand function to push or touch or grip the toy, even pointing is enough. This may lead to the use on alternative communication methods like pointing pictures or things at first. Usually fine finger movements seperately are not possible, sometimes you may give on orthosis tied to fist to help pointing.

IV Vifaa
Devices

Angalia ukurasa 122
See page 122

- **Mto mdogo maalum wa mazoezi na baadaye mkubwa**
  Wedge cushion small and later bigger
- **Kiti-kona na meza**
  Corner chair with table
- **Fremu ya kusimamia (stendi) na meza**
  Standing frame with table
- **Havihitajiki viatu maalum bila umuhimu, tumia viatu vya kawaida**
  No need for orthopedic shoes necessarily
- **Vifaa bandia vya kusimamia visivyo na kiungo**
  Standing orthoses without joint
- **Splinti za mikono**
  Hand splints
- **Nguo inayovutika kama mpira ya lycra inaweza kusaidia kukaza mwili**
  Lycra body may help body control
- **Korseti kama inahitajika kutokana na mgongo uliopindia pembeni**
  Corsette if needed due to scoliosis
- **Kiti- mwendo**
  Wheelchair

V **Kuongea**
Speech

- **Angalia ukurasa 134**
  See page 134

VI **Matatizo katika ulishaji**
Feeding problems

- **Angalia ukurasa 163**
  See page 163

ATAKSIA
ATAXIA

Ataksia ni matatizo ya mijongeo kwa maana ya udhaifu wa urari (balance) anatembea kwa kupanua miguu na hatua za upandeni, ikijaribu kumsaidia kwa kunyanyua mikono na mijongeo ya mikono. kwa kawaida sio tu ulemavu wa mishipa ya fahamu ya mtoto bali uhusiana na daiplejia yenye mikakamao au kichwa kujaa maji. Stadi za mikono mara nyingi huathirika kwa ukosefu wa uratibu wa miendo. Akili inaweza kuwa kawaida. Toni ya misuli inaweza kuwa kama kawaida au imepungua. Utambuzi wa ugonjwa mara nyingi hufanyika wakati mtoto anaanza kutembea akiwa wima. Kabla ya hapo kwa kawaida ni uchelewaji wa misuli kupata nguvu na kutoratibika kwa mijongeo ya mkono kunaonekana.

Ataxia is a mobility disorder meaning poor balance with widebased gait and side steps trying to assist by lifting arms and hand movements. It is often not the only neurological disability of the child but assossiated with spastic diplegia or hydrocephalus. Hand skills are often affected with uncoordinated movements. Intelligence may be normal. Muscle tonus might be normal or hypotonic. Diagnosis is usually made at the time child starts moving in upright position. Before that usually only delay in all motor skills and uncoordinated hand movements are observed.

I Matumizi makubwa ya misuli ya mwili
Gross motor

Shughuli zote za tiba mazoezi kama ni kwa waliodhaniwa kuwa na mtindia wa ubongo.
All rehabilitation activities as in any suspected developing CP syndromes.

- **Wakati dalili za matatizo ya urari (disbalance) yanapodhaniwa kipaumbele muhimu ni kufanya mazoezi ya urari (balance exercises) kama vile kuinamia pembeni, kuweka uzito kiupande, kujiviringisha na kubembeza.**
  When signs and symptoms of disbalance is suspected special attention is put to balance exercises like bending to sides, supporting weight on sides, rolling and swinging.

- **Kumbeba mtoto mgongoni ni kuzuri kwa mazoezi ya urari (balance).**
  Carrying child on mothers back is an excellent way to practise balance.

II Matumizi ya misuli ya mikono
Fine motor

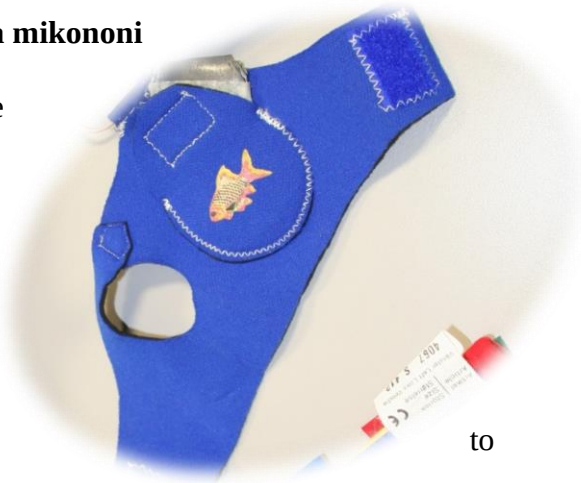
Wazo la muhimu tena ni kwamba, wakati unamsaidia mtoto mwili wake uwe umewekwa vizuri si mikono.
Key idea is again that while assisting child his body should be fixed not hands.

- **Kuuweka mwili vizuri kifaa cha kwanza ni kifaa kizuri cha kukalia: kiti-kona kwenda kiti kidogo maalum "postural", kwa watoto wadogo, wakubwa tumia mto saidizi na mkanda mpana inapohitajika.**
  To fix the body the first device is good seat: corner chair to small postural chair to toddlers and bigger use supporting cushions and wide belts on demand.

- **Nguo ya kuvutika kama mpira ya lycra ni nzuri sana kwa kusaidia mwili na kuupa mkono uratibu mzuri.**
  Lycra cloth is excellent to support the trunk and to give better coornination to hands.

- **Jaribu koti la uzito au mto wenye uzito wa kumzungushia.**
  Try weight jacket or lap weight.

- **Kwa wakubwa wakati mwingine uzito wa mikononi wafaa kujaribiwa.**
  To bigger ones sometimes wrist weights are tried.



- **Usiipe kipaumbele sana jinsi mijongeo mibaya ya mikono na mikono inavyoonekana bali mtoto anavyoweza kushika.**
  Dont pay too much attention how dyskinetic the arms and hands look but follow the result wheather child succeeds to grip.

III Devices
Vifaa

Vyote vinavyohitajika, angalia ukurasa 122.
All on demand, see page 122.

- **Viti muhimu kiti-kona au kiti maalum "postural" na meza, mito maalum na mikanda kama inahitajika.**
  Seat necessary corner or postural with table, cushions and belts if needed.

- **Ubao wa urari (ubao wa balance) kama anaweza kutumia.**
  Balance board if he is able to use.

- **Nguo ya kuvutika kama mpira ya lycra**
  Lycra cloth

- **Koti zito, mto mzito wa kuzungushia mwili, uzito wa mkononi**
  Weight jacket, lap weight, wrist weight

- **Magongo, fremu ya kutembelea kama inahitajika**
  Crutches, walking frame if needed

- **Kiti mwendo kama kinahitajika**
  Wheelchair if needed

IV Kuongea
Speech

Angalia ukurasa 134
See page 134

V Matatizo katika ulishaji
Feeding problems

Angalia ukurasa 163
See page 163

MAGONJWA YA MISULI
MUSCLE DISEASES

Baadhi ya matatizo ya misuli hayaathiri ujuzi wa mishipa ya fahamu kabisa, matatizo katika misuli mikubwa. Kwenye baadhi ubongo pia huathirika na kuleta matatizo ya kiakili pia au usonji. Baadhi ya magonjwa ya misuli yanaongezeka na kuwa na hali mbaya na baadhi hayabadiliki. Magonjwa ya kawaida sana ya misuli ni udhaifu wa misuli wa aina ya" Duchenne " ambapo dalili huanza baada ya mtoto kuwa ameshaanza kijifunza kutembea na kupoteza uwezo wa kutembea katika umri wa kubalehe. katika mpango wa tiba mazoezi (huduma ya utengamavu) unaweza kubadilika mara kwa mara kama kuna maendeleo yanayohitaji vifaa. Zoezi ya tiba mazoezi (huduma za utengamavu) yapangwe kuipa nguvu misuli iliyobaki bila kuchoka, kuzuia misuli ya viungo kukaza, mazoezi ya kupumua na apewe vifaa.

Some muscle diseases dont affect neurological skills at all causing muscle hypotonia and weakness and motor problem. In some brain is also affected causing mental retardation or autism. Some muscle diseases are progressive some more stagnant. Most common progressive muscle disease is Duchenne muscular dystrofy where symptoms start after child has already learned to walk and child looses walking capacity at puberty. In rehabilitation the plan may be changing often as there is developing needs for devices. Rehabilitation exercises are to be planned to strenghten the remaining muscle mass without exhausting, preventing contractures, exercising breathing and supplying devices.

I Matumizi makubwa ya misuli ya mwili
Gross motor

Ili mradi mtoto ana uwezo wa kujijongeza mfanyishe shughuli za kawaida kila siku kama vile kucheza hata kukimbia nje kama ilivyo kwa watoto wengine.
As long as the child is mobile activate normal daily acticities like playing even running outside like other children do.

- **Jaribu kuongeza kwa njia ya michezo umpe mtoto hali ya kuongeza uwezo wake lakini usimchoshe kwa kumtaka afanye zaidi, kama mtoto anasema hawezi kuendelea zaidi mpe muda wa kupumzika.**
  Try through playing get the child maximize his potency but dont exhaust the child by demanding too much, if child says he is not able to do more allow to rest.

- **Katika tiba mazoezi (huduma ya utengamavu) afanye uwezo uliobakia mwenyewe kama mazoezi ya kiutendaji: kutambaa, kujipinduapindua, (kujiviringisha), kukaa kutoka mlalo na kusimama.**
  In therapy practise remaining capacity like doing functional exercises: crawling, rolling, getting up to sitting and standing.

- **Hakuna mazoezi ya kurefusha misuli isipokuwa kama uwezo wa kutokujijongeza umeanza kukaza viungo.**
  No stretching unless immobility has started to stiffen joints.

- **Usifanye mazoezi ya kurefusha misuli kupita uwezo wa viungo kujijongeza.**
  Dont stretch over normal joint mobility.

- **Kumpakata mapajani, kwenye mkeka (kapeti), kwa kutumia mito maalum, kwa vifaa bandia, kwa kutumia vifaa maalum kukaa na kusimama wima ni muhimu sana, badilisha mikao mara nyingi kwa siku.**
  Positioning on lap, on mat, by using cushions, by orthoses, by using devices to sit and stand is extremely important, change position many times per day.

- **Hali inaweza kubadilika kuwa mbaya haraka ndani ya miezi kadhaa, mapitio ya mara kwa mara yanahitajika na kuwa tayari kutoa vifaa zaidi (kuazima fremu yakutembelea mtoto anaweza kuwa hawezi kutumia kifaa kwa muda mrefu, na kwa baadhi ya familia hawana uwezo wa kununua vifaa vyote ambavyo havifai kwa muda mrefu). Bado hata miezi mitatu uwezo wa kutembea zaidi ni wa thamani sana kwa mtoto.**
  Situation may change worse quite rapidly within months review often and be ready to give more devices (borrow walking frame child may not be able to use it for long families may not afford to buy all devices that are not suitable for long). Still even three months more walking capacity is of great value to child.

- **Anza mazoezi ya kupumua mara tu baada ya dalili kuonekana, mtoto huhitaji uwezo wake wote kujifunza hayo. kama vile kupuliza manyoya na karatasi nyepesi na kupuliza kwenye chupa.**
  Start breathing exercises soon after diagnosis is made child needs his full capacity to learn them like blowing feathers and paperstrips and blowing to bottle.

- **Kufanya mijongeo ya mbavu toka mwanzo kwa mazoezi ya kunyoosha na kurefusha misuli na kugeuza kifua pande zote, kulalia mto maalumu na tumboni kuweka uzito viwikoni, usingojee hali ya kupumua kwa shida.**
  Keeps thorax mobile since the beginning by stretching and rotating to sides, lying on wedge cushion and on belly supporting elbows dont wait for breathing difficulty.

- **Kama kifua kimepata makohozi kama vile wakati wa maambukizi ya kifua rudi kwa daktari kwa uwezekano wa matibabu ya dawa za kuua wadudu (vimelea vya bakteria)**.
  If chest gets mucoid like during chest infection refer to doctor for possible antibiotics.

- **Fanya na simamia kuchurizika na kutoka kwa makohozi nje ya kifua kwa mkao wa kuweka mto maalum chini ya kifua.**
  Do and superwise chest tapping and drainidge of mucus by positioning with cushion.

- **Matatizo maaulumu yanaweza kuongeza hisia zaidi ya unyayo ambazo husaidi kuweka uzito kwenye miguu kuwa na maumivu makali. Ndio maana aanze mapema kutumia viatu vya kawaida au viatu maalum au vifaa bandia na unaweza kuwaomba wazazi kusugua nyayo taratibu kama mazoezi ya mapema ya kuzuia hisia kali.**
  Special complication may be developing hypersensitivity of soles that makes supporting weight on feet very painful that is why start using shoes ordinary or orthopedic or orthosis early and you may ask parent to rub the soles gently as an exercise early to prevent hypersensitivity.

  Mazoezi ya kupumua:
  Breathing exercises:

- **Kupuliza unyoya au karatasi nyepesi, kupuliza hewa kwenye chupa ya maji.**
  To blow feather or light paper strips, to blow air to water bottle.





- **Mshike mtoto kwenye mto maalumu akiwa kichwa chini na kwanza alalie mgongo na halafu alalie tumbo.**
  Hold the child on the wedge cushion, head down, lying first on the back and then on the belly.

- **Unyooshe kifua na kwa upande wa pembeni na upige polepole kifua kwa mikono kuondoa makohozi.**
  Stretch chest and sides and tap chest manually to remove mucus.

II Matumizi ya misuli ya mikono
Fine motor

Stadi za mkono au hata stadi za vidole unaweza kuwa ni harakati huru za kipekee za mwisho kwa mtoto au kijana kuweza kufanya.
Hand skill or even finger skills may be the last independant movements child or young person is able to do.

- **Hamasisha ulishaji na usomaji wa vitabu kadri iwezekanavyo kwa kunyanyua meza juu vya kutosha.**
  Encouridge feeding and reading books as long as possible by lifting the table up enough.

- **Kama simu ya aina yoyote inapatikana, ya kisasa, kompyuta ndogo ya mikononi au kompyuta ni vizuri kuhamasisha wazazi kuwafundisha mapema kuzitumia, wanaweza kuwasiliana na hata kujifurahisha wenyewe kutokana nazo kwa muda ambao shughuli zingine zimeisha.**
  If ordinary phone, smart phone, tablet or computer is available in the family encouridge parents to teach the use of these to the child early he may be able to comminicate and entertain himself by these while other activities have finished.

III Vifaa
Devices

Angalia ukurasa 122
See page 122

- **Azima vifaa na badilisha mara kwa mara**
  Very actively, also borrow and change
- **Mto maalumu**
  Wedge cushion
- **Stendi ya kusimamia**
  Standing frame
- **Kiti cha kawaida chenye mkanda wa usalama na unaosaidia na mito, kiti maalum" postural", na kiti-kona**
  Seat ordinary with safety and assisting belts and cushions, postural, corner chair tilted
- **Viatu vya kawaida, viatu maalum au vifaa bandia**
  Ordinary shoes, orthopedic shoes or orthoses
- **Tumia vifaa bandia vya usiku mapema kuzuia misuli ya nyuma ya miguu kukaza na kuwa mifupi**
  Night orthoses early to prevent achilles stiffening and shortening
- **Magongo, fremu za kutembelea**
  Crutches, walking frame
- **Kiti mwendo**
  Wheelchair
- **Chupa ya kupiliza**
  Flowing bottle

IV Matatizo katika ulishaji
Feeding problems

Angalia ukurasa 134
See page 134

MGONGO WAZI(MMC)
SPINA BIFIDA/MENINGOMYELOCELE(MMC)

Jinsi mgongo wazi unavyokuwa (MMC) juu zaidi ndivyo kupooza kwa miguu kunavyo kuwa zaidi. Na jinsi mgongo wazi (MMC) unavyokuwa wa chini ndivyo miguu inavyoweza kujongea vizuri. Uwezo wa kutembea unategemea na ukali wa upoozaji wa mguu, baadhi yao ambao wana mgongo wazi (MMC) wa chini hujifunza kutembea vizuri. Ambao wana mgongo wazi (MMC) wa juu hujifunza kutembea aidha kwa vifaa bandia na magongo au kwa fremu za kutembelea au kwa kutumia kiti mwendo tu, kama miguu imepooza kabisa, inatakiwa apewe mapema kiti mwendo katika umri wa miaka 2-3. kwa ambao wana mgongo wazi (MMC) wa juu kibofu cha mkojo ni aina ya chumba na unahitajika mpira kutoa mkojo nje mara kwa mara. Kama inatokea kuwa mgongo wazi (MMC) ni wa chini kibofu cha mkojo ni cha aina ya kutema mkojo husababisha kujikojolea mara kwa mara. Kupata choo kumeathirika na kusababisha aidha kukosa haja au kuhara.

The higher the cele of the back is the more severe is the paralysis of legs. The lower the cele is the better moving are legs. Mobility skills are dependant of the severity of leg paralysis, some with low cele learn to walk well. Those with higher cele learn to walk either by orthosis and crutches or walking frame or are wheelchair users only. If legs are totally paralyzed wheelchair should be given early at the age of 2-3 years. With high cele the bladder is chamber type to be eptied by repeated catheterizing. In case the cele is low the bladder is spitting type causing frequent wetting. Bowel function is affected causing either constipation or diarrhoea.

Madhara yote haya ya matibabu ya watoto wa mgongo wazi ni magumu kiasi kwamba kituo cha tiba mazoezi (huduma ya utengamavu) cha Dar es salaam (CCBRT)kishauri mapema inawezekana kusafiri, baadaye wakati mtoto akiwa na umri wa miezi 6. Ukijumuisha na ushauri wa kitaalamu wa mapema kwa watoto wanaohisiwa kuwa ni wa kichwa kujaa maji (kichwa maji) kutoka aidha Dar es salam au Mbeya kuhusu operesheni ya kichwa kujaa maji (kichwa maji). Baada ya ushauri Inuka inauwezo wa kuendelea na shughuli za tiba mazoezi (huduma ya utengamavu). Wenye matatizo maalumu na makali ya mgongo wazi (MMC) yana tabia kuendeleza kwa vidonda sugu vya kina vya mfupa wa nyuma ya kiuno (sakrumu), matako/makalio na miguu kutokana na ukosefu wa hisia. Kila mmoja inatakiwa kufahamu uwezekano kiasi kwamba ngozi hiyo inatakiwa kuchunguzwa kwa uangalifu kila siku.

All these medical complications of MMC children are so difficult that Dar es salaam rehabilitation center should be consulted as early as possible to travel, latest when the baby is 6 months. If combined with suspected hydrocephalus consult earlier either Dar or Mbeya about shunting. After consultation Inuka is able to continue rehabilitation activities. Special severe complications of MMC is tendency to develop deep chronic wounds of sacrum, buttocks and legs due to lack of sensation. Everybody should be aware of this possiblity so that skin needs to be checked carefully daily.

Katika kasti ya P.O.P au vifaa bandia kipaumbele maalumu kipewe katika kulainisha na kubadilisha P.O.P kila wiki, hatua ya haraka ichukuliwe pale kidonda kinapoonekana kwa kurekebisha kasti ya P.O.P au vifaa bandia kwa kipunguzio cha msukumo (shimo) na kutumia dawa. Mara nyingi watoto wenye mgongo wazi (MMC) wanazaliwa na mguu rungu (clubfoot). Mpangilio wa matibabu ya miguu rungu (clubfoot) urekebishwe ili kwamba vifaa bandia vinatumika kwa kipindi chote cha ukuaji. Akili zake ni za kawaida isipokuwa kichwa kujaa maji na uwezekano wa madhara yake huaribu uwezo au husababisha kutoona vizuri (uoni hafifu) au upofu. Stadi za mikono ni nzuri na kumfundisha mapema kujitegemea katika shughuli za kila siku ni muhimu. Kama makalio yameteguka wakati wa kuzaliwa, kumbeba mgongoni kwa kutumia vifaa bandia ya makalio husaidia.

In casting or orthosis special attention should be put to softening and changing cast weekly, immediate actions if sore is observed by remodelling the cast or orthosis to be pressure reducing(hole) and using medicines. MMC children are often born with clubfoot. Clubfoot treatment schedule should be modified so that orthosis is used throughout growing. Intelligence is normal unless hydrocephalus with its possible complications ruins the capacity or causes low vision or blindness. Hand skills are good and teaching independence in daily activities early is necessary.
If hips are dislocated at birth, carrying on mothers back and use of hip abduction orthoses helps.

I Matumizi makubwa ya misuli ya mwili
Gross motor

A. Mazoezi ya mtoto
Baby exercises

Kama kawaida
As usual

B. Mazoezi ya kunyoosha na kurefusha na kulegeza misuli
Stretching and relaxing

Nyoosha na refusha misuli tu ya sehemu za mwili ya mtoto ambazo misuli imekaza kawaida kwa mguu rungu (clubfoot).
Stretching only to body area where child has stiffening usually clubfoot.

Usikunje kupita kiasi au kuzungusha bila ulazima viungo vilivyopooza kama vile nyonga, inawezakana ikawa mfupa wa mguu haupo kwenye kikombe cha nyonga na huwa mbaya kwa kuzunguusha nyonga.
Dont overbend or rotate unnecessarly paralyzed joint like hips, there might be hip luxation that worsens by rotating hips.

C. Mazoezi ya kiutendaji
Functional exercises

Kama miguu inajongea fanya mazoezi hayohayo ya kiutendaji ya kawaida:
If legs move do same functional exercises as usual:

- **Mazoezi ya kukaza shingo**
  Head control
- **Mazoezi ya kugeuka**
  Turning
- **Mazoezi ya kutambaa**
  Crawling
- **Mazoezi ya kuamka kukaa kutoka kulala**
  To get up sitting
- **Mazoezi ya kuamka kusimama wima**
  To get up standing
- **Mazoezi ya kutembea**
  To exercise walking

Kama miguu imepooza rekebisha mazoezi:
If legs are paralyzed modify exercises:

- **Mazoezi ya kukaza shingo**
  Head control

- **Mazoezi ya kugeuka**
  Turning

- **Kulalia tumbo kuweka uzito kwenye viwiko**
  Lying on belly, supporting on elbows

- **Kutambalia tumbo ikisaidiwa na mikono kuvuta miguu**
  Crawling on belly assisting by arms to pull legs

- **Kukaa kwenye mkeka (kapeti), ukisaidiwa na mikono, mazoezi ya urari (balance) huanzia umri wa miezi 5-6.**
  Sitting as placed on mat, supporting by arms, balance exercises starting at 5-6 month`s age.

- **Kukaa kwenye kiti-meza huanzia umri wa miezi 7-8.**
  Sitting in chair with table starting at 7-8 month`s age.

- **Kusimama kwenye fremu akiwa na umri wa mwaka mmoja**
  Standing in frame at 1year age.

- **Kutambaa kwa matako/makalio kunawezekana**
  Buttock suffling may be possible.

- **Jaribu ubao wa kutambaa katika umri wa mwaka mmoja**
  Try scooter board at 1year age

- **Katika umri wa miaka miwili, azima kiti- mwendo kidogo kumpa uwezekano wa kujipindua (si kwa ajili ya usafiri au uwezekano wa kutumia nje kwenye mchanga).**
  At 2 years borrow tiny wheelchair to give an opportunity to roll independantly (it is not for transport or possible to use outside on sand).

- **Vifaa bandia virefu vinaweza vinawezesha kufanya mazoezi ya kutembea mwenyewe kwa msaada au kwa kitoroli**
  Long orthoses may make possible to practice walking assisted manually or by trolley.

- **Usihamasishe/usiruhusu kutambaa, kutambaa kwa matako au kutembea kwa magoti nje ya nyumba! Si kuzuri kwa kujiamini kwa mtoto na kuna hatari kwa ngozi zao: uchafu wa aina yoyote, vitu vyenye ncha kali, miiba n.k.**
  Dont encouridge/allow crawling, buttock suffelling or walking on knees outside of home area! It is not good for childs selfesteem and risky for their skin: all kind of dirt, sharp objects, thorns etc.

II Matumizi ya misuli ya mikono
Fine motor

Uwezekano wa mikono ni wa kawaida
Likely hands are normal

III Hisia
Sensation

- **Ukusefu wa hisia wa miguu na makalio ni ni wa hatari sana, soma juu.**
  -Lack of sensation of legs and buttocks are very risky, read above.

- **Fanya kila kitu ili kuepuka vidonda na anza mara moja matibabu kama kuna dalili kuepuka vidonda sugu.**
  Do everything to avoid sores and start immediate treatment if observed to avoid deep chronic wounds.

- **Tunza ndani na nje ya nyumba (kwa suruali, soksi, viatu au viatu bandia) makalio, magoti na miguu vizuri wakati wa kutambaa na kutambaa kwa matako/makalio kwenye sakafu ya sementi au mchanga/udongo.**
  Protect inside and at home yard (by trouses, socks, shoes or orthoses) buttocks, knees and feet well while crawling and buttock suffeling on sement floor or in sand.

IV Vifaa
Devices

Angalia ukurasa 122, See page 122

- **Mto maalumu**
  Wedge cushion

- **Kiti aidha cha kwenye kiti- kona au kiti maalum "postural" kilicho laini na meza na sehemu ya kuwekea miguu.**
  Seat either corner or postural with good softening and table and footrest

- **Fremu ya kusimamia na meza**
  Standing frame with table

- **Vifaa bandia vifupi au virefu**
  Orthoses low or high

- **Kitoroli, magongo, fremu ya kutembelea kama itahitajika**
  Trolley, crutches, walking frame when needed

- **Kiti mwendo ni muhimu hata kama anatambaa au kutambaa kwa matako au kutembea hatua fupi**
  Wheelchair necessary even if crawling or suffeling on buttocks or walking short distances.

# KICHWA KUJAA MAJI (KICHWA MAJI)
HYDROCEPHALUS(HC)

Kichwa kujaa maji (kichwa maji) kinaweza kuonekana baada ya kuzaliwa, hujitokeza ndani ya miezi michache au muda wowote. Kwenye kichwa maji (maji kujaa kichwani) cha kuzaliwa mzunguko wa maji ya uti wa mgongo (CSF) ni aidha umeziba kabisa au kuzuiwa kwa kiasi wakati msukumo (pressure) inaanza kuongezeka hatua kwa hatua. Inaweza kujitokeza kwa sababu ya kutoka kwa damu nyingi kwenye mishipa ya damu ya kwenye ubongo mara tu baada ya mtoto kuzaliwa halafu mtoto anaweza kuwa na ulemavu mkubwa vinginevyo kama kusumbuliwa na mtindio wa ubongo. Homa ya uti wa mgongo au uvimbe kwenye ubongo unaweza kuwa ni sababu kama maji kujaa kichwani (kichwa maji) kutajitokeza baadaye. Ushauri wa mtaalam wa upasuaji wa hospitali ya rufaa ya Mbeya ufanyike daima. Kama kichwa maji (kichwa kujaa maji) kimejitokeza, bila matibabu kwa muda mrefu sana inaweza kusababisha upofu. Katika stadi za mijongeo kukosa uwiano mzuri pamoja na ataksia huonekana mara nyingi na ukuaji unaenda taratibu. Baadhi wanakuwa kawaida baada ya kutibiwa mapema baadhi wanakuwa na udumavu wa akili na baadhi wanakuwa na ulemavu mkubwa. Mpira unaotoa maji kutoka kichwani kwenda sehemu nyingine (shunt) uliowekwa kwa njia ya operesheni unaweza kuziba, kuvunjika au kupata magonjwa na hatua ya haraka ndani ya masaa machache inaweza kuokoa maisha.

Hydrocephalus may be obvious after birth, develop within few months or develop any time. In congenital hydrocephalus cerebral fluid circulation is either totally blocked or prevented partially when pressure starts to increase gradually. It may develop secondary to brain hemorrhage in perinatal period then child may be severely handicapped even otherwise like suffering from CP. Meningitis or brain tumour may be the cause if hydrocephalus develops later. Surgical consultation to Mbeya referral hospital should always be done. If hydrocephalus develops without treatment too long it may cause blindness. In mobility skills poor balance with ataxia is often seen and development is slowed. Some are normal after early treatment some are mentally retarded and some severely handicapped. If the child is operated the shunt may get blocked, broken or infected and rapid action within next hours is life saving.

I Matumizi makubwa ya misuli ya mwili
Gross motor

A. Mazoezi ya mtoto
Baby exercises

Angalia ukurasa 15
See page15

B. Mazoezi ya kurefusha na kulegeza misuli
Stretching and relaxing

Kwa kawaida haihitajiki kabisa isipokuwa kama mtoto ana ulemavu (tatizo) mkali wa viungo.
Usually not needed at all unless child has severe motor handicap.

C. Mazoezi ya kiutendaji
Functional exercises

Angalia ukurasa 28
See page 28

- **Shingo kukaza mara nyingi huchelewa kwa ajili kulegea kwa misuli na ukubwa wa kichwa**
  Head control usually delayed due to hypotonia and the size of head.
- **Mazoezi ya kugeuka**
  Turning
- **Mazoezi ya kutambaa**
  Crawling
- **Mazoezi kuamka kukaa kutoka kulala**
  To get up sitting
- **Mazoezi ya kuamka kusimama**
  To get up standing
- **Mazoezi ya kutembea**
  To exercise walking
- **Kipaumbile maalumu kwenye mazoezi ya urari (balance): Kupindia pembeni na kuweka uzito kwa upande, kujigeuza na kubembeza**
  Special attention to balance exercises: Bending and supporting weight to sides, rolling, swinging
- **Kumbeba mgongoni ni kuzuri kwa urari (balance)**
  Carrying on mother`s back is good for balance.

II Hisia
Sensory

Hakuna tabia ya pekee kwa hisia kali
No special tendency to hypersensitivity

Mara nyinigi watoto waliolegea misuli wana hisia kidogo na mazoezi ya kuboresha hisia kwa kutumia vitu mbalimbali yanaweza kusaidia.
Often hypotonic children are hyposensitive and sensory exercices by different materials may help.

- **Mazoezi ya vestibula kubembea, kujigeuzageuza (kuviringika)**
  Vestibular exercises swinging, rolling

III Matumizi ya misuli ya mikono
Fine motor

Mijongeo ya ovyo ya mikono (clumsiness) inaweza kuchunguzwa.
Clumsiness of hands may be observed.

- **Kiti maalumu "postural" pamoja na meza na sehemu ya kuwekea miguu, na fremu ya kusimamia pamoja na meza kwa stadi za mazoezi ya shughuli za mikono.**
  Postural seat with table and foot rest and standing frame with table for hand function skill exercises like playing, drawing aso.

IV Vifaa
Devices

Vifaa vinavyohitajika, angalia ukurasa 122
On demand, see page 122

- **Kutokana na matatizo ya urari (balance problem), magongo au fremu ya kutembelea huweza kuhitajika kwa muda kama itatokea mtoto anapofanya mazoezi ya kutembea mwenyewe.**
  Due to balance problem crutches or walking frame may be needed temporarily in phase when child practises walking independently.

UDUMAVU WA AKILI
MENTAL RETARDATION

Karibu asilimia 15 ya watu wote wapo chini ya wastani lakini ni asilimia 2-3 tu ya watu wenye ulemavu wana uelewa unaotambulika sana ndio maana wanaitwa wamedumaa akili. Katika udumavu mdogo wa akili uwezo wa ukuaji ni kama ule wa mtu mzima, utendaji wake unakuwa sawa na mtoto asiye na matatizo mwenye umri wa miaka 12 ambapo anaweza kuwa na stadi nyingi! Mtu anaweza kufanya kazi, kuishi mwenyewe kama anapenda, kuwa na famili yake mwenyewe. Watoto wenye udumavu mdogo wa akili wanatakiwa waende kwenye shule za kawaida kujifunza kusoma, kuandika na kuhesabu. Mtu mwenye udumavu kiasi wa akili ni kama mtu mzima anaweza kufikia hatua sawa na mtoto wa miaka 6-7 asiye na matatizo. Mtu anaweza kushiriki katika shughuli za kila siku kama kuvaa, kuoga, kwenda chooni, kula mwenyewe na hata kufanya baadhi ya kazi za nyumbani. Wapewe elimu maalum ya kujifunza stadi / shughuli za kujitegemea. Wanahitaji bado mtu mwingine kuwaangalia wakati wote wa maisha yao kufuata ratiba ya kila siku na wajisikie wapo salama. Wenye udumavu mkubwa sana wa akili wanakuwa na uwezo kama mtu wa umri wa miaka chini ya 2 hata kama ni watu wazima. Wanahitaji kusaidiwa masaa 24 katika muda wote wa maisha yao. Bado wanatakiwa washiriki katika shughuli za kila siku kama kula kwa mkono, kumsaidia kuvaa na kuvua kwa kunyoosha mkono na mguu, kuwekwa mkao mzuri wakati wa kuogeshwa, kuwasiliana kwa maneno machache au ishara au kwa kuonesha vitu au picha, kumuonesha midoli au kutopenda, kucheza na kufurahia maisha yao ya pekee! Udumavu wa akili unaweza ukaunganika na tatizo la mtindio wa ubongo au ulemavu unaojitegemea bila kuwa na madhara mengine ya viungo. Asilimia 30 ya watu wenye udumavu wa akili wana kifafa.

About 15 % of all people are below avarage but only 2-3 % the handicap of intelligence is so remarkable that they are called mentally retarded. In mild mental retardation the capacity to develop is so that as an adult the person is funtioning at the same level as 12year old healthy child which is quite a lot of possible skills! The person is able to work, live independantly if wished, get own family. Mildly mentally retarded children should go to normal school to learn to read, write and count. Moderately mentally retarded person as an adult is able to reach the same level as 6-7year old healthy child. The person learns to participate in daily activities like do dressing, bathing, toileting, eating independantly and do even some home work. They should get special education to learn independant skills. Still they need another person to look after themselves throughout their life to keep daily routine and feel safe. Deeply and profoundly mentally retarded are at the level of less than 2 years even as adults. They need 24 hours care throughout their lives. Still they may practice participating in daily activities like feeding by hand, assisting in dressing and undressing by stretching hand and leg, keeping position while washed, comminicating by a few words or signs or by pointing objects or pictures, showing joy or dislike, playing and enjoying their individual unique lives! Mental retardation may be a joint problem of CP syndrom or independent handicap without other physical complications. 30 % of mentally retarded have epilepsy.

Matatizo ya udumavu wa akili ya kawaida zaidi bila kuwa na mtindio wa ubongo kwa sababu ya hitilafu kwenye damu (hitilafu ya kromozomu) ni mongolia (Down's syndrome -DS). Kati ya watu wenye mongolia kuna utofauti katika uwezo wa akili. Wachache wana udumavu mdogo wa akili na wachache wana udumavu kiasi wa akili. Katika udumavu mdogo wa akili mtoto anakua taratibu na analegea misuli lakini anaweza kujifunza kutembea mwenyewe katika umri wa miaka miwili, wengine baadae. Kuchelewa kuongea ni tatizo la muhimu kwa watoto wa mongolia ndiyo maana ishara za kuwasiliana zinaanza katika umri wa miezi 9-12, kwa picha baadae. Mazoezi ya misuli ya kinywa na stadi za kula zinahitajika kama kawaida. Mguu wa mongolia inayojulikana haina uvungo. Mtoto anaweza kuhitaji viatu maalumu kwa kuweka urari " balance " tu, hahitaji vifaa bandia. Mara nyingi watoto wenye mongolia wana matatizo ya moyo au matatizo ya njia ya haja kubwa ambayo inaweza kuonesha maisha yao ya baadae. Wote wanatabia ya kuwa na magonjwa ya kifua kama watoto wadogo sana (umri wa chini ya mwaka mmoja) na watoto wa umri wa kati (umri wa miaka 1-3).

The most common mental retardation syndrom without CP due to chromosomal disorder is Down´s syndrome. Among Downs people there is variation in mental capacity. Some are mildly retarded some moderately. In mild cases the child is slow and hypotonic but learns to walk independantly at the age of two years, others later. Speech delay is a special problem of Down children that is why the signs for communicating are started at the age of 9-12 months, pictures later. Motor training of the mouth and eating skills are usually needed. Typical Down´s foot is always flat. The child may need supporting shoes only to support balance, no orthoses. Often Down children have heart anomaly or anomalies of bowel that may dictate their future. All have tendency to have respiratory infections as babies and toddlers.

Mapango wa matibabu kwa mlemavu wa akili upo kutokana na maendeleo.
Licha ya uchelewaji wa utambuzi nakisi ni kawaida katika upande wakutembea kwa kutumia mikono, hisia, umakini, uzungumzaji na mawasiliano
Kama mwenye matatizo ya akili haudhurii katika uelewaji kwa kusaidiwa vizuri wanaweza kuwa katika hatua nyingine ya pili ya matatizo ya kitabia, hata usumbufu na tabia ya fujo.
Matibabu ya ulemavu wa akili ni kama kumfundisha vitu mbalimbali, angalau mawasiliano na shughuli za kawaida za kila siku na familia nzima na ujuzi wa kuishi katika jamii, baadaye kazi za nyumbani na hata kazi za nje.
Kitu muhimu ni kwamba wanahitaji sana marudio na utaratibu mzuri.

Rehabilitation plan for mentally retarded is made in according to area of delay.
Despite of cognitive deficit delay is common in gross motor, fine motor, sensory, attention, speech and communication areas.
If mentally retarded person is not attended in understanding and supportive way they may develop secondary behavioral problems, even disruptive and aggressive behaviour.
Rehabilitation of mentally retarded is like teaching things, at least communication and daily living activities and all family and social skills, later home work or even work outside.
Special feature is that they need very much repetition and routine.

I Matumizi makubwa ya misuli ya mwili
Gross motor

Stadi za watoto wote katika huduma za kila siku na stadi za kiutendaji kazi za watoto zifanywe kama watoto wengine.
All baby skills in daily care and baby functional skills are done as with others.

Hali ya mwili kuwa na mijongeo ya ovyo si lazima kuhitaji tiba mazoezi (huduma ya utengamavu), ahamasishwe tu kujiunga na watoto wengine na kukimbia, kurukaruka na kucheza pamoja nao.
Clumsiness does not necessarily need therapy, only encouridgement to join other children and run, jump and play with them.

Kwa kawaida mwili wenye mijongeo ya ovyo hauhitaji vifaa.
Usually clumsy ones need no devices.

II Hisia
Sensory

Kulegea kwa misuli na kupungua kwa hisia mara kwa mara.
Often hypotonic and hyposensitive

- **Kusugua (kuchua) na mazoezi ya hisia kwa kutumia aina mbalimabli za vifaa zinaweza kusaidia.**
  Rubbing and sensory exercises by using different materials may help.

- **Kubembeza na kugeuzageuza (kujiviringisha)**
  Swinging and rolling

III Matumizi ya misuli ya mikono

Fine motor

Mikono na vidole kwa kawaida vina mijongeo ya ovyo.
Hands and fingers are usually clumsy.

- **Shughuli zote za mezani kama vile ulaji, uchezaji, uchoraji, kazi za kikapu**
  All table activities like feeding, playing, drawing, basket tasks

- **Shughuli zote za kilasiku uvuaji nguo, uvalishaji, uoshaji na kujisaida haja**
  All daily activities undressing, dressing, washing, toileting

IV Kutoa udenda na mijongeo ya ovyo ya kutafuna na mdomo
Drooling and clumsy chewing and mouth

Angalia ukurasa 85
See page 85

V Kuongea
- Speech

Angalia ukurasa 134
See page 134

VI Umakini
Attention

Angalia ukurasa 90.
See page 90.

Mara nyingi hawatulii kwa muda mrefu, watukutu, wanatembeatembea sana
Often restless with short span, hyperactive, hyperkinetic

- **Tumia njia zilezile kama katika hali (matatizo) ya ukosefu wa umakini**
  Use same methods like in Attention deficit disorder, page 90.

VII Matatizo katika ulishaji
- Feeding problems

Angalia ukurasa 163.
See page 163.

TATIZO MAALUMU LA KUONGEA (SLI, DISFASIA)
SPECIAL LANGUAGE IMPAIRMENT (SLI, DYSPHASIA)

Mawasiliano kwa kuongea kwa binadamu ni moja ya kipengele cha msingi katika mahitaji ya binadamu wote.
Mawasiliano kati ya mama, na washiriki wengine katika familia na mtoto huanza mara tu baada ya kuzaliwa.
Kwa kawaida mama huchunguza sura ya mtoto, hujongea karibu, hutazama macho ya mtoto na kuongea naye. Kama mtoto hawezi kujibu kama inavyotegemewa kwa mfano ba-ba-ba, kutabasamu maongezi ya hatua kwa hatua kati ya mama na mtoto, familia nzima na mtoto huitaji uhamishaji na muongozo.

Communication by speech is one of the basic features and needs of all human beings. Communication between mother, other family members and baby starts immediately after birth. Mothers naturally seek babys face, go close, look at the eyes and talk to him. If child is not responding as expected by babbling, smiling and gradually speech both mother, whole family and child need encouridgement and supervision.

SLI (Disfasia) ina maanisha uchelewaji na dalili za pekee za maendeleo ya kuongea. Mtoto huweza kuwa na matitizo katika kuelewa maongezi au kujieleza kwa kuongea. mara nyingi zote mbili huweza kuwa pamoja. kuelewa maneno au sentensi inaweza kuwa ni vigumu, kama vile mtoto aliishi katika nchi ya ugeni bila kuweza kufuata lugha ya jamii husika.

SLI (Dysphasia) means delay and peculiar features of speech development. Child may have difficulty in understanding speech or expressing himself by speaking. Often these are combined. Understanding of words and sentences may be difficult, as if the child is living in foreign country without being able to follow local language.

Mtoto mwenye SLI (Disfasia) inawezekana hawezi kuelewa maongezi vizuri. huweza kuelewa baadhi ya maneno amabayo huambiwa kwa ufasaha mara kwa mara kwa kurudiwa katika ya mambo ya kila siku. Maongezi ya kina huweza kuwa ni vigumu kuyaelewa. Maongezi ya mtoto huweza kuwa si ya kueleweka vizuri na yenye mapungufu. Mtoto anaweza kutamka maneno na sentensi lakini ni senetensi ni fupi, zisizo fasaha na zilizo ngumu kuzielewa. Ina maanisha kwamba mtoto anaweza kuongea kama kawaida na kuongea sana ila anochoongea hakieleweki vizuri.

Mtoto anaweza kuwa pia na matatizo ya misuli ya midomo amabayo hufanya utamkaje wake wa maneno kuwa mgumu kuulewa katika maongezi. Tatizo hili halimfanyi kuwa anamatatizo ya kuelewa maongezi. Watoto wengine ambao huelewa na kuongea vizuri wanaweza bado kuwa na ugumu katika kutamka sauti kwa ufasaha. hii inaitwa dislalia.

Matatizo katika kuwasiliana-kuongea na kuelewa maongezi -yanaweza kumfanya mtoto ajisikie si salama na kutoridhika. Juhudi za mtoto kuhitaji sana mawasiliano humchokesha. Baadhi ya watoto wanakuwa na tabia kama za usonji, hupendelea kufuatilia mambo (ajenda), mipangilio yao na kuishi katika ulimwengu wao wenyewe, wana tabia yao wenyewe isiyo ya kwaida na kujiweka katika muonekano usio wa kawaida, na kupendelea kuwa na mipangilio yao na baadhi ya michezo ya aina fulani fulani.

The child with SLI may not understand speech properly. He may understand some request and other things said to him clearly and repeatedly in everyday situations. More complex speech may be hard to understand. Childs speech may be unclear and clumsy. The child may utter words and sentences, but sentences are short, dysgram matic and hard to understand. On the other hand the child may speak a lot and fluent ly, but the meaning is unclear.

Children may also have motor problems to pronounce the words and speech. This problem doesn´t always include problem to understand speech. Some children who understand and speak well may still have difficulty to pronounce some speech sounds clearly. This is called dyslalia.

Difficulty to communicate – speak and understand speech – may make the child to feel unsafe and unpleasant. Communication is very demanding and tiring for the child. Some of the children behave like autistic, prefer to keep their own agenda and world, finding own odd looking interests, play and routine.

- **Kwanza jaribu kuhakikisha kwamba mtoto anaweza kuona na kusikia.**
  At first try to confirm that child is able to see and hear.

- **Fanya mawasiliano ya macho kwa macho, jijongeze karibu na endelea kuongea naye.**
  Seek eye to eye contact, go close and keep on talking with the child.

- **Hamasisha kwa njia zote mtoto anapojaribu kuwasiliana.**
  Encouridge all efforts childs is trying to communicate.

Angalia ukurasa 134. ..
See page 134.

TATIZO LA UKOSEFU WA UMAKINI (ADHD)
ATTENTION DEFICIT DISORDER

Ni matatizo ya kutokuwa makini, kutokutulia umakini na tabia ya kufanya kitu bila kufikiria ni dalili za tatizo la kukosa umakini (ADHD). Karibu wote wana akili za kawaida na uwezo wa kujifunza. Baadhi huweza kuwa na matatizo ya kushindwa kutofautisha hisia ambayo huweza kusababisha kuwa na hisia kali za kuguswa na za sauti zinazowafanya wasitulie.

Difficulty to concentrate, hyperactivity and impulsive behaviour are the main symptoms of attention deficit disorder (ADHD). Almost all of them have normal intelligence and capacity to learn. Some have sensory integration problems that may cause hypersensitivity of touch and sounds making them restless.

I Umakini
Attention

- **Tumia ratiba ya kila siku inayoelezewa na picha.**
  Use daily routine explained by pictures.

- **Ispokuwa kama si kawaida tayarisha kwa kuonesha picha na kuelezea kwa maneno.**
  If exceptions prepare by showing a picture and telling by words.

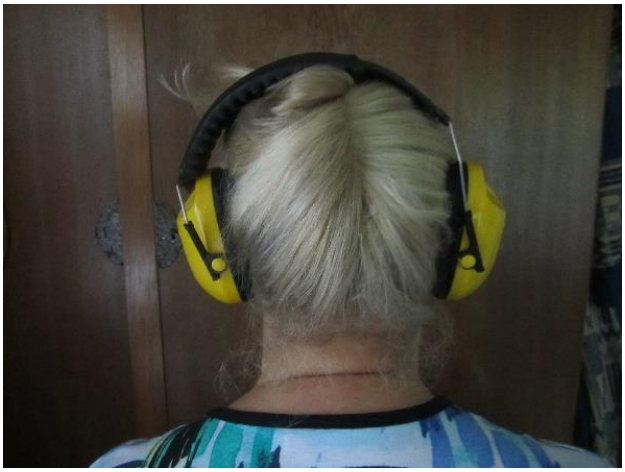
- **Angalia kuhusu ukurasa wa picha 141.**
  See about pictures page 141.

- **Mpe kitu kidogo kinachotosha kama vile mpira laini kufanya atumie mikono yake na wakati huohuo awe makini kusikiliza.**
  Give small suitable thing like small soft ball to keep hands active while child concentrates in listening.

II Hisia
Sensory

- **Mpe uchochezi (usisimuzi) wa kina wa hisia kwa kuchua (kukanda).**
  Give deep sensory stimuli by massage.

- **Jaribu jaketi lenye uzito, mto mzito wa mapajani kwa kuwatuliza.**
  Angalia ukurasa 130
  Try weight jacket, lap weight for pacifying. See page 130



- **Fanya zoezi la matatizo ya hisia za juu ya mwili (kwenye ngozi) kwa aina mbalimbali ya vitu vya kusisimua, pia brashi.**
  Exercise superficial sensory problems by different sensory materials brushing aso.

- **Jaribu vifaa vya kulinda masikio.**
  Try ear protectors.

- **Jaribu mto wa hewa wa pulizo(puto) kwenye kiti au kiti cha kubembea.**
  Try air balloon cushion on seat or swinging chair.

III Kwa ujumla
General

- **Tumia sauti ya kawaida unapoongea na mtoto, unaweza hata kunong´ona inaboresha uwezo wa masikio yake kusikia!**
  Use normal voice while talking to child, you may even try whispering it sharpens his ears!

- **Tulia, kuwa na tabia nzuri, usijiweke mwenyewe nyuma katika ushirikiano, mtoto aweza kuonekana kama, anajaribu kukukasilisha ama kukupa changamoto!**
  Keep calm, you behave well, dont allow yourself to feel crossed, child may look like trying to provoke or challenge you!

- **Muhamasishe kwa kumpa zawadi kama asante, kumsifia, kumkweza aidha kwa hesabu au kwa vipande vya sarafu za karatasi, pale ambapo mtoto amepata kiasi fulani cha zawadi, iliyokubalika kabla, fanya pamoja naye kitu kizuri, cheza naye pamoja n.k.**
  Encouridge by giving rewards like thanking, praising, giving ”points” either mathematic or small paper coins, when the child has earned certain amount of rewards, agreed before hand do together with him something nice, play together etc.

***Picha**: Mtoto atapata ”pesa” kama sarafu tano, atapata zawadi biscuti*

- **Weka vipindi vidogo vya kazi na vyenye ukomo kwa kutumia saa yoyote na anaweza kufuata muda ulioisha na uliobakia.**
  Keep working periods short time limited using watch or any timer and he is able to follow the time passing and remaining.

- **Weka vipindi vya kazi kuwa vya amani, kwa mwanzoni ni wewe tu bila ya watu wengine, mtoto na wazazi kama inahitajik bila makelele.**
  Keep working periods peaceful, at first no other people but you, child and parent if needed, no noise.

IV Vifaa
Devices

Nguo za uzito
Weight clothes

Angalia ukurasa 132.
See page 132.

USONJI
AUTISM

Watu wenye usonji wana matatizo katika kuwasiliana na kubadilishana uzoefu au kuwapa nafasi wengine. Wana matatizo ya kutoelewa hisia zinazojieleza usoni na lugha ya mwili ambayo huwafanya wasiwe na ushirikiano wa kitabia katika jamii kama kwamba hawafurahii kuwa na wengine. Huwa wanachanganyikiwa pale watu wengine wanapotumaini wawe na tabia tofauti na wao wenyewe wanavyojua na tabia hiyo haieleweki vizuri kwao. Wanaweza kuwa na hisia kali kiasi kwamba huwafanya wao kujisikia kutotaka sana hata watu wapole (wema) au wasafi, wanaonuka au chumba au chakula. Wanaweza kujisikia kuwagusa kwa upole kama vile kumpiga kijikofi au kukumbatiana hakuridhishi. Sauti ya kawaida inaweza kuwatahamakisha kwa hofu. mara nyingi huchelewa kuongea ambapo hufanya mawasiliano kuwa magumu. Kuchanganyikiwa na kuwa kama na hisia za fujo katika mazingira huwafanya wasitulie na mara nyingi kuwa wasumbufu. Kama Mawasiliano ya kibinadamu hayatarajiwi kwao, huwafanya kupenda mpangilio wa shughuli za kila siku na kwa kuzingatia mahitaji ya utaratibu na kucheza na vitu halisi kama vile vya duara kwa kuviviringisha. Kwa kawaida hupenda kuwa na vitu kama vile fimbo maalumu kwenye mikono yao, inawafanya kujisikia salama. Hawapendi kuangaliana machoni. Baadhi wana akili za kawaida zilizojifungia kabla ya tiba mazoezi, tiba mazoezi (huduma ya utengamavu) huleta matarajio ya kufungua njia na kuleta upeo wa vipaji vyao vilivyojificha kutumika. Baadhi wana udumavu wa akili.

Autistics have difficulty in communication and sharing experiences or taking turns with other people. They have difficulty in understanding facial expression and body language which makes their behaviour unsocial looking as if they dont enjoy other peoples company. They feel confused when other people expect them to behave the way that is not clear to them. They may be hypersensitive which makes them to feel even nice or clean smelling people or room or food very repulsive. They may feel soft touch like light patting or hugging very unpleasent. Ordinary noise may make the overreact to panic. Often they are delayed in speech development which makes communication even more difficult. The confusion and like chaos of stimuli in the surrounding makes them to be very restless and often disruptive. As human communication is so unexpectable to them makes them to be more fond of routines and strict need for order and to play by concrete object like round object by rolling them. Usually they like to hold something like certain stick in their hand it gives them safety. They avoid straight eye- eye contact. Some have normal intelligence locked in before rehabilitation hopefully opens the bars and releases the hidden skills for their use. Some are mentally retarded.

Lengo la kwanza ni kupata mawasiliano
First aim is to get contact somehow

- **Anza kwenye sehemu iliyo tulivu, ni vizuri mtot na wewe, mtoto na wazazi tu.**
  Start in peaceful area, preferebly you, child and parent only.

- **Iweke tabia yako mwenyewe kuwa ya utulivu, sauti yako ya chini au hata kunong´ona.**
  Keep your own behaviour very calm, your voice silent or even try whispering.

- **Unaweza kusema kitu ili kumtuliza lakini kwa kujaribu kwanza kukaa karibu naye aidha pembeni yake au mbele yake bila kumkodolea macho yako kwake**.
  You may say something soothing but the first try is to sit close either side by side or opposite to child without staring into his eyes.

- **Mpe kazi rahisi kwenye kikapu/ ndoo kama vile vitu mraba vyekundu na buluu na avipange kwa maumbo kutokana na rangi.**
  Give a simple basket task like cubicles red and blue and model arranging them in according to colour.

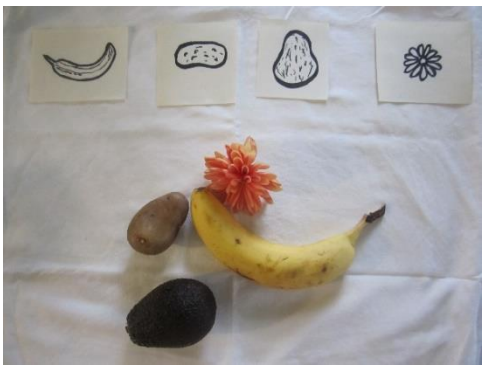
- **Rudia kutengeneza maumbo.**
  Repeat modelling

- **Halafu mpe taratibu mtoto vimraba apange umbo kwa kumsaidia mkono wake.**
  Then give the cubicles slowly to child modelling arranging by assisting his hand.

- **Halafu unaweza kumuomba aendelee na kumngojea yeye afanye hivo.**
  Then you may ask him to continue by waiting for him to do.

- **Akifanya hivyo mara kadhaa, badilisha kazi.**
  When this is done several times, change the task.

Kazi mbalimbali :
Different tasks:



Unganisha kitu na picha.
Put a thing and picture together.

Unganisha picha mbili zilio sawa.
Put two similar pictures together.

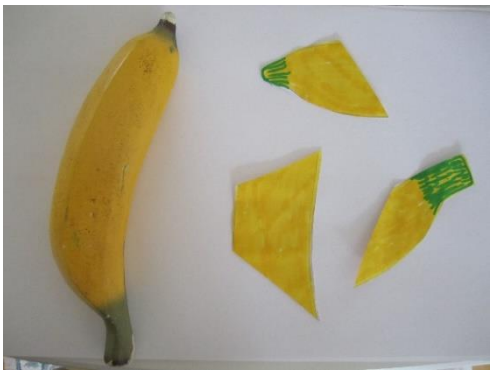
Taja vitu mbalimbali.
Name different things.

Unganisha vitu vinavyolingana na panga tena kwa ugumu kidogo.
Arrange things that belong together and make it more difficult.

Nipe kitu – Chukua kitu
Give me – bring me

Kumvalisha - kumvua.
Dress - undress.

Taja sehemu za mwili.
Name parts of the body.



Unganisha michecho ya vipande vya picha pamoja na mtoto.
Make a puzzle.

Puliza povu
la sabuni, maji na manyoya.
Blow bubbles of soap and
water, blow feather.

- **Kama mtoto ameshajifunza fikra(idea)**
  anza kuweka zamu.
  When child has learned the idea start making turns.

- **Baadaye muongoze kwa mtindo wa Unipe nikupe kama mtindo wa ushirikiano.**
  Then superwise I give you-Yoy give me type of sharing.

- **Tumia sentensi fupi za maneno moja-mbili-tatu na mwanzoni usibadili.**
  Use short one-two-three word sentences and dont change them at first.

- **Tumia maneno ya kumpongeza na ama kitu amabacho mtoto anataka kula au kufanya, zawadi inatolewa baada ya kumaliza kazi, hata ikiwa ni ngumu kiasi gani, mpongeze kwa ajili ya kujaribu.**
  Use rewards verbal praising and something the child wants to eat or do, reward is given after task is done, no matter how difficult it was, it is a reward for trying.

Angalia ukurasa kwa matendo ya vikapu 151.
See page about basket task 151.

I Mazoezi ya matibabu ya kitabia (PRT)

Pivotal response training /PRT

Mazoezi ya matibabu ya kitabia (PRT)ni njia mojawapo ya mazoezi ya kuzungumza, kuwaasiliana na kushirikiana.
PRT / Pivotal response training is one method to practise speech, communication and sharing.

Wazo ni kwamba mtoto anaongoza hali na mzingira, na si mtaalamu wa tiba mazoezi (huduma ya utengamavu)-mtherapia.
Idea is that child is leading the situation, not the therapist.

Dhumuni kubwa ni kumfanya mtoto apendelee kuzungumza na kuwasiliana.
Main aim is to get child interested in speaking and communication.

- **Mtaalamu wa tiba mazoezi huweka vitu vya kuchezea (midoli) au vipande vya chakula kizuri karibu na mtoto na yeye (mtaalamu wa tiba mazoezi).**
  Therapist puts toys or pieces of nice food nereby the child and therapist.

- **Mtoto kwa kiasi fulani huonesha vitu vya kuchezea (midoli) anavyovitaka, na unasema jina la kitu hicho kwa mfano "gari lekundu"**
  Child shows somehow that he wants a certain toy, you say the name of the toy like
  "red car".

- **Unangojea mtoto aimarishe matakwa yake, na unarudia "gari lekundu" mpaka mtoto atapotamka kitu, kwa mara ya kwanza inaweza kuwa sauti kama vile -aa- au kukuangalia machoni, na halafu mpe ukisema tena gari "lekundu".**
  You wait child to fortify his desire, you repeat "red car" until the child has uttered something at first may be just a sound like -aa- or just a look into your eyes, then you give him it by saying again "red car".

- **Hatua kwa hatua mtoto hugundua wazo kwamba kwa kujaribu kusema anapata kitu hicho kuchezea.**
  Gradually the child realizes the idea that by trying to speak he gets something to play.

- **Hatua kwa hatua anajifunza kusema vizuri na kwa ufasaha.**
  Gradually he learns to say it better and correct.

- **Wazo ni kutengeneza mazungumzo, kuongeza kupendelea kuongea na kufundisha kuiga.**
  Idea is to model speech, raise childs interest and wait and teach him to mimick.

II Picha
Pictures

Picha zinatumika kama ilivyo kwenye matibabu ya kuongea (speech therapy) na kuupa umakini kwa kupangilia hali ya mazingira.

Pictures are used the same way as in speech therapy and keeping attention by making order to the situation.

Angalia ukurasa 141.
See page 141.

- **Wakati kitu kimemalizika, picha hufunikwa au kuwekwa pembeni.**
  When something is done picture is turn or put aside.

- **Mtoto anaweza kuona ni kiasi gani atafanya kwa kipindi hiki.**
  Child is able to see how much there is to do this time

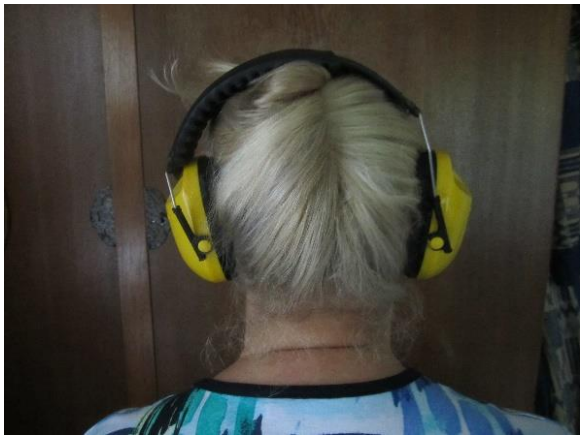
- **Mazingira halisi na vitu halisi hueleweka zaidi kwa mtoto mwenye usonji kuliko maneno.**
  Concrete world is more real to autistics than verbal.

- **Neno linaposemwa hupotea.**
  When word is said it disappears.

- **Picha hubaki na ni rahisi kukumbuka wote tupo hivyo**
  Picture stays and is easy to remember we are on this.

III Hisia
Sensory

Kitu muhimu cha kukumbuka ni kwamba watu wenye usonji wanaweza kuwa na hisia nyingi zaidi katika uchochezi wa milango yote ya fahamu.



Upmost important is to remember that autistics may be very oversensitive to many stimuli of all senses.

- **Hata harufu ya kawaida au harufu nzuri inaweza kuwashtua.**
  Even ordinary or nice smells may be shocking.

- **Makelele yotote huweza kuwatia hofu. Jaribu kutumia visaidizi vya kuzuia makelele masikioni.**
  Any noise may cause panic. Try ear protectors or plugs.

- **Mguso mdogo anaweza kujisikia maumivu, akiguswa sana au akikamatwa anaweza kuvumilia vizuri.**
  Light touch may feel painful firm touch or holding may be better tolerated.

- **Wanaweza kuwa na upendeleo wa ladha zisizoza kawaida kama pilipili na matunda ya uchachu.**
  They may be hyporeactive to tastes like loving pepper or sour fruit.

- **Mara nyingi wanachagua sana vyakula.**
  Often they are very selective with foods.

- **Wanaweza kuwa wanachagua sana vyakula, wingi wa chakula au mpangilio/muundo wake.**
  They may be very selective to roughness or thickness of their food.

- **Hutaka sahani zao ziwekwe kwa mpangilio kama vile usichanganye ugali na mchuzi lakini chakula kibaki kikionekana**
  They want their plate well organized like dont try to mix ugali and soup but leave foodstuffs visible.

- **Uchochezi wa hisia za ndani pia hupewa**
  kwa majaketi ya uzito, mto mzito wa mapajani kumtuliza wakati anafanya
  kitu.
  Deep sensation stimuli are also given by weight jackets, lap weight to keep calm while doing something.

- **Wanaweza kuwa na ugumu wa kupata**
  usingizi au wanaamka mapema zaidi. Jaribu blanketi la uzito.
  They may have difficulties to get sleep or they wake up too early. Try weight blanket.

- **Kama inahitajika kumtuliza katika hali ya hatari kwa kumshikilia kwa nguvu na kuongea kwa sauti ya upole.**
  If needed to pacify in dangerous situation by holding do it firmly but gently by speaking by soft voice.

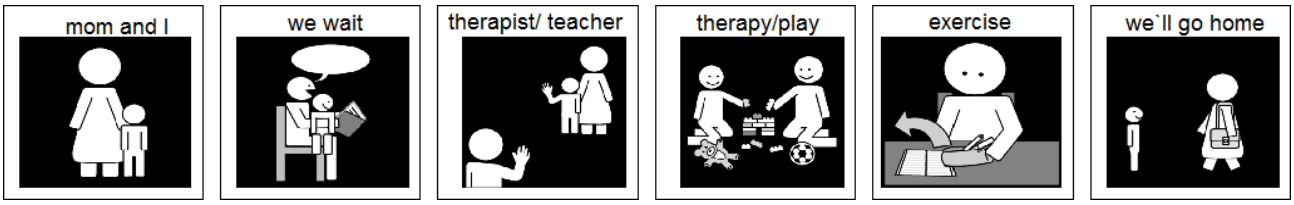
IV Utaratibu wa kila siku na tabia za pekee
Routines and peculiar behaviour

Watu wenye usonji hupendelea kucheza peke yao na vitu halisi vichache.
Autistics may feel more fond of playing alone by a few concrete objects.

Wanabeba fimbo, mifuniko n.k. au kitu chochote na ni wazito kukubali kwamba vitu walivyobeba kupokonywa, usifanye hivyo ila tu kama vitu hivyo ni vya hatari au vya ncha kali.
They carry a stick, lid, rag or anything and are heavily resisting if the thing is taken away, dont do it unless it is dangerous like sharp.

- **Kuweka mpangilio mzuri na mlolongo wa tabia kwa tiba mazoezi (huduma ya utengamavu), na malengo kamili unayotegemea ayafanye ya kila siku, inamfanya ajisikie salama.**
  Keep order and routine in rehabilitation, daily living and tasks you expect him to do. It gives him/her feeling of safety.

- **Jaribu kujiandaa kwa mabadiliko kwa picha: kwa mfano picha ya mama na mtoto kwanza na halafu mtaalamu na tiba mazoezi na mtoto, halafu lengo, halafu kucheza, na halafu mama na mtoto tena.**
  Try to prepare for changes by pictures: for instance mama and child picture at first then therapist and child picture, then tasks, then play, then mama and child again.



- **Si muhimu kutilia maanani kukatiza michezo isiyo ya kawida ila kwa kujaribu kumhamasisha kuwasiliana taratibu michezo isiyo ya kwaida itapotea na michezo/ shughuli za kijamii zitachukua nafasi Zaidi.**
  It is not necessary to concentrate in breaking odd plays but trying to encouridge communication gradually more social activities replace odd routins.

V Kuongea
Speech

Angalia ukurasa 134.
See page 134.

VI Matizo katika ulishaji
Feeding problems

Angalia ukurasa 163.
See page 163.

UONI HAFIFU, UPOFU
LOW VISION, BLINDNESS

Uoni hafifu kwa mtoto unaonekana mwanzoni kana kwamba mtoto amechelewa au hata kuwa katika ulimwengu wake mwenyewe kama vile wa watu wenye usonji. Uwezo wa kutambua uelekeo wa sauti kwa kawaida hujitokeza katika umri wa miezi 8 kwa hiyo mwanzoni mtoto hawezi kugeuzia kichwa upande sauti inakotokea. Picha za uso za rangi nyeupe na nyeusi ni dhana nzuri kwa kuchunguza uwezo wa kuona wa mtoto. kama inaambatana na makengeza au hali ya jicho kucheza muda wote ni rahisi kugundua tatizo la jicho. Uwezekano wa kushitukashituka (degedege) ungeulizwa kama kawaida kama mtoto mdogo anashituka sana, anaweza kupata tatizo la kutoona vizuri kabla ya matibabu. Mara nyingi mtindio wa ubongo au kichwa kujaa maji (kichwa maji) huendana na matatizo ya uoni hafifu. Daima ushauri wa daktari wa macho unahitajika kutolewa.

Low vision of a baby may look at first as if the child is otherwise delayed or even in own world like autistics. The capacity to recognaze the directions to sounds develops normally at the age on 8 months so at first the child may not turn the head to sound. Black and white face-picture is a good tool in checking eye sight of a baby. If squint or nystagmus accompanies it is easier to observe the eye problem. Possible fits should always to be asked like a baby with infantile spasms may look blind before treatment. Often CP syndrome or hydrocephalus is accompanied by low vision. Oftalmologist should always be consulted.

Tiba mazoezi (huduma ya utengamavu) ya mapema ni kufanya maendeleo ya kawaida kwa mazoezi ya vitendo (kazi) pamoja na mazoezi mengi ya hisia hususani kwenye mikono. Akili ya mtoto itaonesha uwezekano wa maendeleo mazuri ya tiba mazoezi. kama mtoto hana matatizo mengine ya makuzi ya mishipa ya fahamu mtoto huhitaji elimu maalumu shuleni.

Early rehabilitation is to model normal development by functional exercises with a lot of sensory exercises especially to hands. Intelligence dictates the chances of benefitting rehabilitation. If child has no other neurological developmental problems child needs special education at school.

Mtoto anaweza kuona vizuri kwenye mwangaza.
Child may see better in bright light.

- **Fanyisha jicho mazoezi kwa kufuata mwanga wa tochi (ya kawaida, mwanga hafifu, usitumie tochi za aina ya led au zenye mwanga mkali).**
  Practise eye sight by following torch (normal a bit dim light, not led or other overbright).

- **Tengeneza mwanasesere wa vitambaa na mvalishe nguo zenye rangi nyeupe na nyeusi (zenye tofausti kubwa).**
  Make cloth dolly dressed in black and white (sharp contrast).

- **Tofauti na mtindio wa ubongo kwamba haishauriwi kumsaidia kwa kumshika mikono yake, mtoto mwenye upofu anatakiwa aruhusiwe "kuona kwa kutumia mikono" ina maana kwamba ashauriwe kugusa kwa kuweka vifaa (midoli) vya kuchezea watoto, nguo, kijiko mikononi mwake, asimamiwe kugusa na kupiga sakafu, makochi, na watu wengine. Ni kuimarisha hisia zake ziwe juu Zaidi!**
  Unlike in CP, when it is not advisable to assist by gripping his hands, the blind child should always be allowed "to see by hands" meaning that he is superwised to touch by putting a toy, dress, spoon etc. to his hand, he is superwised to touch and pat floor, furniture, other people. It is to sharpen his sensation to be superior!

- **Kwa mtoto tengeneza nyumba ya maboksi kutoka boksi nene na gumu kwa ajili ya kucheza ndani na kuhisi mazingira yanayomzunguka.**
  To baby make a box house from big thick paper box to play in and feel the surroundings.

- **Fanya michezo yote ya vidole-viganja pamoja na kuimba.**
  Do all kind of finger-palm plays with singing.

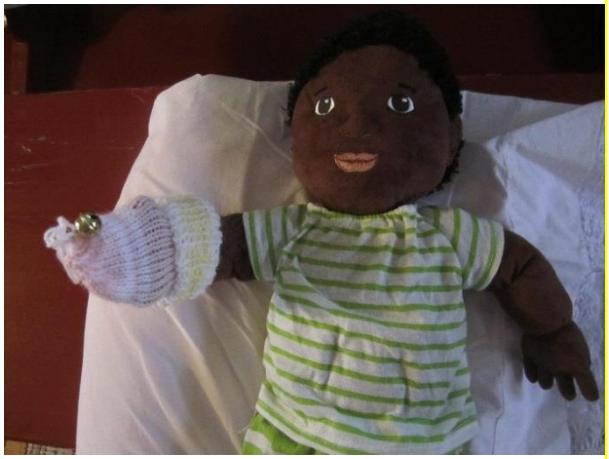
- **Imarisha uwezo wake wa kusikia kwa kumuita na kupiga kengele kutoka pande tofauti.**
  Sharpen his ears by calling him and playing bell from different directions.

- **Mtoto kipofu(asiyeona) hawezi kujua mazingira yanayomzunguuka kwa kuona na kwa hiyo ni vigumu kwake kujifunza lugha na maneno. Ili kujifunza kuongea na kuwasiliana anakuhitaji wewe kuchukua vitu vya kila siku karibu naye aguse, ataje, mwambie jinsi ya kufanya navyo n.k.**
  A blind child can not get to know his surroundings by watching and therefore has also difficult to learn language and words. In order to learn to speak and communicate, he/she need you to take everyday objects near to him/her to touch, name them, tell what to do with them etc.

I Mazoezi makubwa ya misuli ya mwili
Gross motor

A. Mazoezi ya mtoto kama kawaida
Baby exercises as usual

B. Mazoezi ya kutenda mwenyewe (kiutendaji) kama mengine
Functional exercises as others



- **Umpe glovu ya njuga (kengele) moja kuchezea.**
  Give glove with a bell to play.

- **Umpe mpira wa njuga (kengele) ili kuchezea na kufuuata.**
  Give a ball with bell for playing and following.

- **Mruhusu kusukuma viti au stuli au mpe toroli kujifunza kutembea.**
  Allow to push furniture or give a trolley to practise walking.

- **Wakati wa kusimama wima katika umri wa miaka 2-3 mpe fimbo yenye tairi kujifunza kugundua njia salama.**
  When upright at the age of 2-3 give a stick with roll to practise finding safe routes.

Fimbo kama rungu isitogi kwenye mchanga.
Stick with the knot does not stick into sand.

Fimbo hii imetengeneshwa kwa kinga ya waya.
Stick is made by protection tube of electric wire.

- **Miaka ya baadaye mpe fimbo nyeupe.**
  Later years give white stick

- **Panga njia wakati wa kutembelea nyumbani: kama vile kuweka fimbo au kamba kwenye ukuta kusaidia kugundua njia salama. Unaweza tumia kamba ndefu kufanya mstari kutoka nyumbani mpaka kwenye choo cha nje.**
  Make motor routes during home visiting: like fixing a stick or rope on the wall helps to find the route. You may use long rope to make a line from the house to outside toilet for instance.

- **Weka "kengele ya upepo" (kwa mafano, vipande vya chuma vichache na vyepesi sana kwenye kamba) mtini kumsaidia kugundua mwelekeo nje.**
  Place a "wind bell" (like a few light metal pieces in rope) to tree to assist him to check the directions outside.

Miwani maalumu:
Special eyeglass:

Lensi ya kukuzia
Magnifying glass:

Miwani ya jua
Sunshades

Vitu mbalimbali kwa mazoezi:
Different therapy facilities:

II Utumizi wa mikono
Fine motor

- **Kanda/sugua mikono kwa upole.**
  Rub hands gently.

- **Umvalishe glovu ya njuga (kengele) kuchezea, kuhisi na kusikia mahali na mkao wa mkono, badilisha upande.**
  Dress him by a glove with bell to play, to feel and to hear the place and position of hand, change side.

- **Umsaidie kupiga makofi (na kurusha teke).**
  Assist him to clap hands (and to kick).

- **Umsaidie kugusa vitu mbalimbali kama mwili na uso wake na wa mama, doli, godoro, sakafu, mchanga, vitu laini na vigumu, vya baridi na vya joto n.k.**
  Assist him to touch different objects his and mamas body and face, matrass, floor, sand, soft and hard, cold and warm food etc.

III Vifaa
Devices

- **Mpira wa njuga (kengele)**
  Ball with bell

- **Kitabu maalumu**
  Special books

- **Toroli**
  Walking frame

- **Miwani maalumu**
  Special eyeglass

- **Fimbo mbalimbali**
  Different sticks

- **Kompyuta maalumu**
  Special computer

KIFAFA
EPILEPSY

Kifafa ni ugonjwa wa ubongo. Asilimia 30 ya watoto walemavu, wenye mtindio wa ubongo na wenye ulemavu wa akili wana kifafa. Mtoto mwenye kifafa anashtuka au anapata degedege. Kushtuka mara moja hakumaanishi kwamba mtoto ana kifafa. Ikiwa uso, mdomo au mwili unashtuka mara nyingi kwa haraka inawezekana kuwa mtoto ana kifafa. Degedege kubwa ni ugonjwa mkali sana. Mtoto anapoteza fahamu na anashtuka mara nyingi kwa muda mfupi au mrefu. Wakati wa degedege inawezekana anakojoa au kupata choo. Anatafuna meno na kutoa mate na hawezi kupumua vizuri.
Kushtuka na degedege kunarudia rudia mara chache au mara nyingi kila siku. Mtoto anahitaji kutibiwa kwa dawa za hospitali. Mara nyingi dawa zinamsaidia mtoto vizuri. Ni lazima kutumia dawa za kifafa kila siku na kwa muda mrefu. Mama wa mtoto mwenye ulemavu anahitajiwa kuulizwa mara kwa mara jinsi mtoto anavyoshtuka au anavyopata degedege. Matibabu mazuri ya kifafa husaidia maendeleo ya mtoto mlemavu. Degedege kubwa na nyingi ni hatari kwa maisha yake na inazuia manufaa ya matibabu na ukuaji.

Epilepsy is disorder of the brain function. About 30 % of all CP and mentally retarded children have epilepsy. In epilepsy child gets small or big fits. If child has one startle it does not mean epilepsy. If face, mouth or body startles or convulses several times rapidly child may have epilepsy. Big convulsion looks very strong. Child looses his consciousness and convulses several times for short or long time. During big convulsion child may urinate or defecate. He grits his teeth and there is excessive saliva in mouth and he is not breathing easily.
Small fits or big convulses return a few times and rarely or many times daily. Child needs to be treated by hospital medicine. Many times medicine helps the child well. It is necessary to use antiepileptic medication daily for long time. Mother of disabled child needs to be asked while met if the child gets any fits small or big. Good treatment of epilepsy helps the child to develop. If convulsions are big and often repeated it is a risk for childs life and prevents him to benefit from rehabilitation and well being.

UTAPIAMLO
MALNUTRITION

Utapiamlo ni kawaida kwa watoto wenye ulemavu tegemezi (ulemavu mkali). Sababu maalumu ni kutokana na ugumu katika ulishaji. Kati ya watoto wenye mtindio wa ubongo wa tetraplejia midomo na ulimi huwa na mikakamao na kutafuna na kumeza huwa ni kugumu. Wakati mwingi hawawezi kuelezea au kuonesha matakwa/ mahitaji yao kama vile kujisikia njaa au wanapokuwa wameridhika (wameshiba). Pia huwa ni rahisi kwao kutapika. Wazazi huchagua vyakula laini au vya majimaji kidogo (uji n.k.) na huweza kusababisha ukosefu wa viini lishe muhimu kama vile vitamini, kama mtoto hawezi kutafuna matunda. Mara nyingi kunywa vitu vya majimaji ni vigumu zaidi na inawezekana kusababisha upungufu wa maji mwilini.

Malnutrition is common among severely handicapped children. Spesific reason is feeding difficulties. Among tetraplegic CP children mouth and tongue are often spastic and chewing and swallowing difficult. They may not be able to express their needs like feeling hungry or when they are satisfied. They are sensitive to vomiting also. Parents choose soft or semiliquid food which may leed to lack of necessary items like vitamins if the child is not able to chew fruits. Often drinking fluids is even more difficult which may lead to dehydration.

Sababu nyingine ya utapiamlo ni kutokujua kuhusu chakula bora na umasikini kuwa vigumu kununua vyakula vyenye bei ghali kama vile vyakula vyenya protini, samaki na nyama au faiba (chakula chenye kambakamba) yenye matunda.
Inavyosemekana watoto weye ulemavu mkubwa mara nyingi hupuuzwa katika jamii, aidha kwa kuwa yatima kama mama amefariki wakati wa kujifungua kwa shida au kutokana na unyanyapaa wa kijamii: au baba au mama hawezi kuvumilia ulemavu mkali wa mtoto wake na mtoto kuachwa kwa bibi au babu au hata ndugu yeyote.

Other reasons to malnutrition is ignorange about good balanced diet and poverty to buy especially expensive food stuffs like protein containing fish and meat or vitamin and fibre containing fruits.
Grossly handicapped children are also often socially neglected, either being orphans if mother died during difficult labour or due to social stigma: either father or mother is not able to tolerate severe handicap of their child and child is given to grandparent or any other relative.

Wakati mwingine ni vigumu kutofautisha kati ya misuli midhaifu kutokatana na tetraplejia na utapiamlo. Kwa sababu misuli haipati mazoezi na haitumiki, mikono na miguu ya mtoto mwenye tetraplejia mara nyingi huwa myembamba. Hii pia inaweza kuonekana kwenye chati ya ukuaji ya mtoto (RCH 4). Bado dalili kuu za utapiamlo hazioneshwi kwenye mwili wa mtoto mwenye ulemavu, sura na mwili huonekana wa kawaida wa afya, nywele zionekane nyeusi na nene, meno na ngozi huonekana nzuri na ngozi isionekane imepauka au miili yao imevimba.

Sometimes it is difficult to differentiate the muscle waisting due to tetraplegia and malnutrition. Because the muscles dont get any exercise and are not used arms and legs of tetraplegic child are often thin. This may also show in growth chart. Still classical features of malnutrition should not show in handicapped childs body, the face and trunk should look normally nourished, hair should look black and thick, teeth and skin should look good and they should not look pale ot get swellings in their body.

Watoto wote wenye ulemavu huhitajika kwenda kwenye kliniki zao za afya mara kwa mara kwa kupimwa uzito na kupata kinga (chanjo). Watoto wasiojeweza (disabled) na wale wanakua taratibu chini ya miaka miwili nao pia wapimwe ukubwa wa kichwa na urefu wao kwenye mahudhurio yao kliniki ili kutambua uwezekano wa mapema wa kuwa na kichwa kujaa maji (kichwa maji) au hali ya kichwa kidogo sana.

All handicapped children need to go to their health clinis regularly for weight check up and to get vaccinations. Disabled and slowly developing children under two years age should also get their height and head circumference monitored in order to get early hydrocephalus or microcephaly to diagnosed.

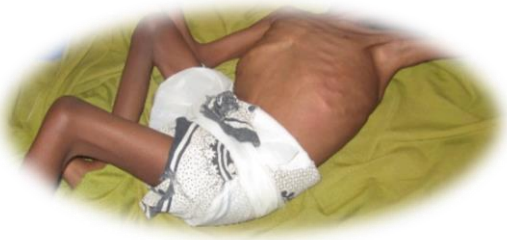
I Uzito mdogo:
Underweight:

Mtoto yupo kwenye rangi ya kijivu katika chati ya ukuaji na kwa ujumla anaonekana mwembamba bila ya dalili za utapiamlo.
Mtoto mwenye uzito wa chini huhitaji daktari mapema kumchunguza ili kujua mapema kama hana magonjwa (kama vile kuhara, ukimwi, kifua kikuu n.k), kwa uangalifu ushauri juu ya ulishaji na upimaji wa uzito na ufuatiliaji wa afya kwa kila wiki.

Child is on grey in growth chart and looks generally thin without other signs of malnutrition. Underweight child need doctors check up to rule out illnesses soon, careful thorough feeding advise and weekly weight and condition monitoring.

II Marazmasi/ Chirwa/ Upojazo:
Marasmus:

Mtoto yupo kwenye rangi nyekundu katika chati ya ukuaji na huonekana mwembamba sana, mbavu zinaonekana na tumbo lipo ndani. Nywele ni za kahawia-kijivu na nyembamba na zimenyonyoka (chache), macho yameingia ndani, ngozi imekauka (kavu) na ina mikunjo mikunjo. Mara nyingi kinywani kuna utandu mweupe na vipele vyenye usaha Marazmasi kali mara nyingi ni dharura na huhitaji kupelekwa hospitali haraka.



Child is on red in growth chart and looks extremely thin, ribs are visible and belly very flat. Hair is brownish-greyish and thin and scarse, eyes sunken, skin dry and wrinkled. Often there is mouth thrush and septic rashes. Gross marasmus is always an emergency and needs immediate hospitalization.

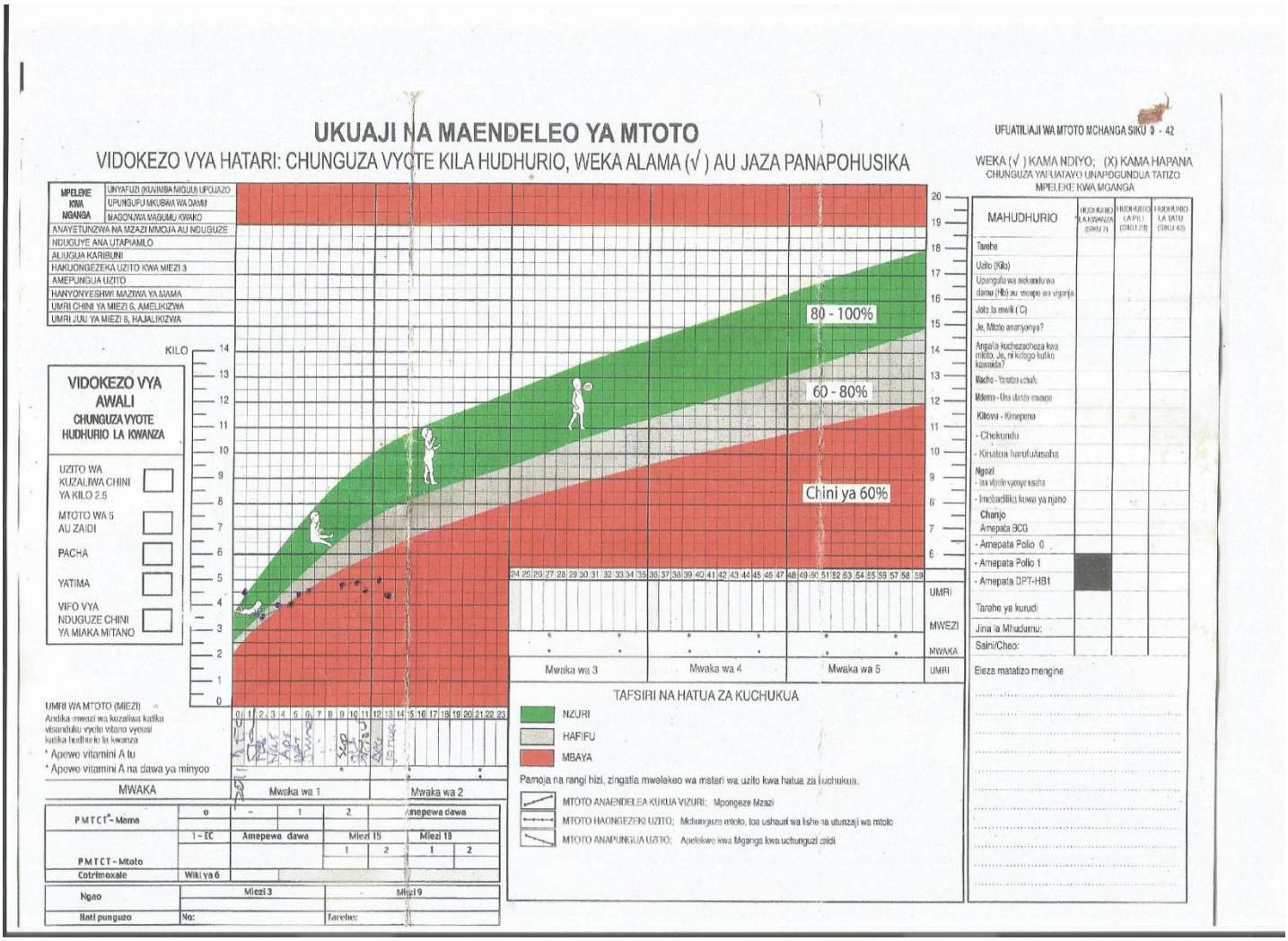
III Kwashakoo/ Unyafuzi:
Kwashiorkor:

Mtoto anakuwa na uvimbe mwili mzima na ni rahisi kugundua kwenye mikono, miguu na uso kiasi kwamba anaonekana kama mwili umejaa maji /kutweta. Kutokana na kuvimba huwezi kutumia chati ya ukuaji kwa kugundua kwashakoo. Wanaonekana ni duni na hawana hamu ya kula chakula. Mara nyingi ngozi ni mbaya sana kama vile zina vidonda vyenye usaha kwenye sehemu za wazi hususani sehemu za chupi au nepi. Mdomoni kuna utando mweupe na unaweza kuwa na majeraha yanayotoa damu. Macho yamepata homa na kuwasha kutokana na ukosefu wa vitamini A. Kwashakoo kali mara nyingi ni dharura na huhitaji kupelekwa hospitalini haraka iwezekanavyo la sivyo ni rahisi kufa.

Child has remarkable swellings all over the body easiest to recognize in arms, legs and face that looks puffy. Due to swellings you cannot use growth chart in diagnosing kwashiorkor. They look miserable and dont have appetite. Skin is often very bad like septic sores open areas especially in groins and nappy area, mouth has trush and may have open bleeding wound, eyes infected and irritated due to lack of vitamin A. Gross kwashiorkor is always an emergency case needing immediate hospitalization, they easily die.

IV Ukuaji na maendeleo ya mtoto
Growth:

Ukuaji wa mtoto huyu si mizuri: Ameanza vizuri baadaye uzito hauongezeki na uzito wake umebadilika kutoka rangi ya kijani mpaka rangi ya kijivu na halafu mpaka rangi nyekundu ambayo ni hatari.
Growth of this child is not good: He started growing well but later his weight dropped from green until grey and later until red, which means danger.



V Kupima mzingo wa kichwa:

To measure head circumference:

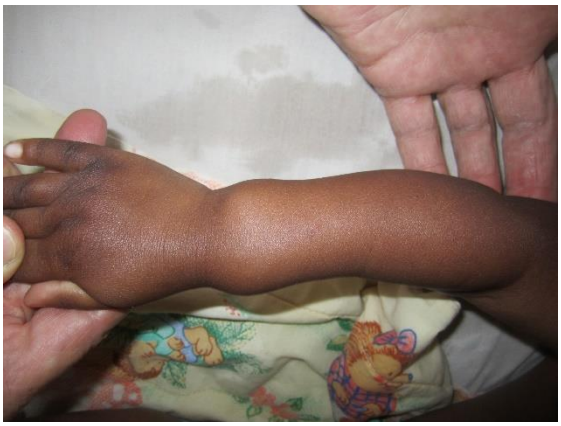
VI Kupima urefu:

Length:

AFYA YA MIFUPA
BONE HEALTH

Kila binadamu wanahitaji mifupa imara. Kwa ukuaji wa mifupa ni lazima kuitumia. Watoto wenye ulemavu wanachelewa katika kujifunza kusimama, kutembea na kuruka. Watoto wenye ulemavu mkali hawawezi kutumia miguu na mgongo vizuri daima na mifupa yao haibebi uzito. Sababu nyingine ni tatizo la kushindwa kula vizuri, wana matatizo ya kutafuna na kumeza chakula. Wazazi huwalisha chakula laini tu, watoto hawapati madini ya kutosha ya kalsiamu na chokaa. Sababu nyingine ni tabia ya kukaa ndani tu bila kuwekwa juani ili kupata vitamini D kupitia ngozi zao. Vitamini D ni muhimu mwilini ili kujenga mifupa. Mifupa ya wenye ulemavu ni myembamba haina kalsiamu na madini ya chokaa ya kutosha. Mifupa yao huvunjika kirahisi.

Ugongwa mwingine wa mifupa ni matege. Matege ni aina ya utapiamlo. Watoto wenye matege wana miguu iliyopinda na viungo vyao huvimba. Misuli yao haina nguvu za kutosha na wanalia mara kwa mara (hawana furaha) kwa sababu wana mauvivu, na wanachelewa kukua na kuendelea vizuri. Sababu ya matege ni upungufu wa kushindwa kula vyakula vyenye kalsiamu na madini ya chokaa ya kutosha.



Ni lazima kuwalisha watoto wote vyakula vyenye kalsiamu na madini ya chokaa. Maziwa ya mama au baadaye ya ng´ombe yana madini ya kutosha, mboga za majani, karanga, maharagwe / soya, matunda na samaki vina madini pia. Watoto wote wanatakiwa kucheza nje kwenye jua la asubuhi na jioni kwa dakika ishirini wakiwa wamevaa shati la mikono mifupi na kaptura tu ili kupata vitamini D kutoka kwenye jua.

All people need strong bones. For growth of bones is necessary to use them. Disabled children are delayed in learning to get up standing, to walk and to jump. Severely disabled children never learn to use their legs and back well and their bones dont bear weight. Another reason is their problem to eat well, they have problems to chew and to swallow. Parents feed them by soft diet only and children dont get enough minerals like calcium and phosphorus. Another reason is that disabled children sit inside and dont be exposed to sunlight to get vitamin D through their skin. Vitamin D is necessary for the body to build bones. Bones of disabled are thin and dont contain anough calcium and phosphorus. Their bones break easily.

Another disease of bones is rickets. Rickets is one type of malnutrition. Bones of children with rickets bend and their joints swell. Muscles are hypotonic, they look miserable because of pains and they are delayed in growth and development. The reason of rickets is lack of minerals calcium and phosphorus and vitamin D.

It is necessary to feed children with minerals calcium and phosphorus. Breast milk or later cow milk is rich of minerals, also vegetables, peanuts, soya beans, fruits and fish contain minerals. All children need to play outside in the mornings and afternoons for twenty minutes exposed to sunshine wearing only small shirt and shorts to get vitamin D from sun.

Vyakula mbalimbali vyenye kalsiamu vizuri:	Good contents of calcium foodstaffs:
- maziwa ya mama au ngombe	- breastmilk or cows milk
- jibini	- cheese
- mbogamboga	- vegetables
- tango	- cucumber
- vitunguu	- onions
- kabichi	- cabage
- karoti	- carrots
- njegere	- pies
- maharagwe	- beans
- karanga	- peanuts
- matunda	- fruits
- samaki	- fish
- mayai	- eggs
- mahindi	- maize
Vyakula mbalimbali visivyo na kalsiamu nyingi:	Foodstaffs with low Calcium contents:
- unga wa ngano(mkate)	- wheat flour (bread)
- nyama	- meat
- mchele	- rice
- kiazi	- potatoe
- tofaa	- apple

HALI YA AFYA YA USAFI
HYGIENE

Watoto wenye ulemavu wanahitajika kutunzwa kama watoto wengine kuhusiana na hali ya afya ya usafi na chakula salama. Pia wana changamoto zaidi. Kama hawajongei au hutambaa kwenye sakafu au nje ni rahisi kuingiwa na uchafu. Mara nyingi hutokwa na udenda na wanaweza kuwa na tabia ya kuweka kitu chochote kwenye midomo yao kutoka chini au sakafuni. Wengi hawawezi kujizuia na kuudhibiti mkojo na kinyesi na hutumia nepi kwa muda mrefu au muda wote hata katika wakati wa ukubwani. Ngozi zao zinaweza kupata magonjwa kutokana na kutojongea au vifaa visivyo vizuri, viatu au vifaa bandia. Wanaweza kupata vidonda vyenye usaha kutokana na kukaa/kulala kwa muda mrefu.

Handicapped children need to be looked after as any children concerning general hygiene and food safety. They also have extra challenges. If they are immobile or crawling on floor or outside they easily may get contaminated by dirt or insects inside or outside. They often drool and may have a habit of putting anything from the floor or ground to their mouth. Many are incontinent cannot control urine and stool and use nappies for long or always even as grown ups. Their skin may get infected due to immobility or unsuitable device, shoes or orthoses. May may get pressure wounds septic and deep.

I Hali ya afya ya usafi
Hygiene

- **Kuoga na kusafisha kila siku sehemu za nepi pale inapohitajika, tumia mafuta ya mgando kama inahitajika.**
  Bath daily and nappy area on demand, use grease if needed.

- **Chunguza kila siku hali ya ngozi.**
  Check skin condition daily.

- **Piga mswaki mara mbili kwa siku.**
  Wash teeth twice daily.

- **Inahitajika kuosha(safisha) mikono ya mtoto kabla ya kula/kumlisha.**
  Wash childs hands before feeding and on demand.

- **Badilisha na fua nguo zako za kazi kila siku, zikaushe juani.**
  Change and wash your working clothes daily, let dry in sunshine.

- **Tumia nepi nzuri kama. Angalia ukurasa 121.**
  Use good nappies like. See page 121.

- **Mpange ajisaidie haja baada ya kula.**
  Practise toileting after feeding.

- **Fagia eneo kila siku katika kitengo cha tiba mazoezi (huduma za utengamavu), safisha godoro kwa maji na sabuni.**
  In rehabilitation units sweep floor daily, wash matrasses by water and soap daily.

- **Osha na safisha mikono yako wakati unabadilisha kutoka mgonjwa kwenda mgonjwa mwingine (wakati wa kukausha mikono baada ya kuiosha usitumie taulo chafu).**
  Wash your hands while changing patient (after washing hands don´t use dirty towel).

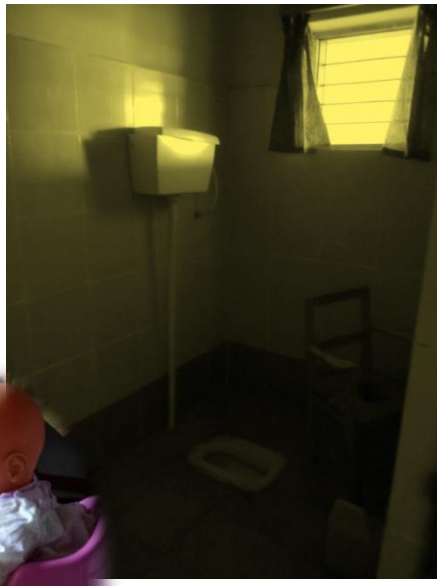
- **Wakati wa kuhudumia eneo lenye vidonda tumia glovu (mipira ya kuvaa mikononi).**
  While handling septic wounds use gloves.

- **Kama mtoto au wewe una majeraha tumia glovu (mipira ya kuvaa mikononi) kumlinda mtoto na wewe kwa VVU (virusi vya UKIMWI) na bakteria.**
  While child or your hand have cut wounds use gloves to protect child and yourself (HIV and bacteria).

- **Kila siku safisha na osha vifaa vya tiba mazoezi na midoli vinavyotumika.**
  Wash toys and therapy materials daily.

- **Hakikisha wanyama hawaingii katika chumba cha tiba mazoezi (huduma ya utengamavu)**
  Keep animals out from therapy room.

II Kujisaidia
Toileting



Umzoeshe mtoto mapema kujisaidia taratibu: Baada ya kuamka, baada ya kula, kabla ya kulala kumtenga kwenye poti.
Make your child accustomed to regular toileting quite early, after waking up, meals and before sleep put your baby to toileting position and later to potty or toilet seat.

Mtoto hawezi kujisaidia mwenyewe kwa sababu misuli imekakamaa ndiyo maana unashauriwa kumzoesha mtoto mapema.
Child cannot control normally his bladder and bowels because of the muscle stiffness. Thats why it is good to start toileting early.

III Kufunga nepi kwa kutumia khanga:
To bind nappy by using khanga:

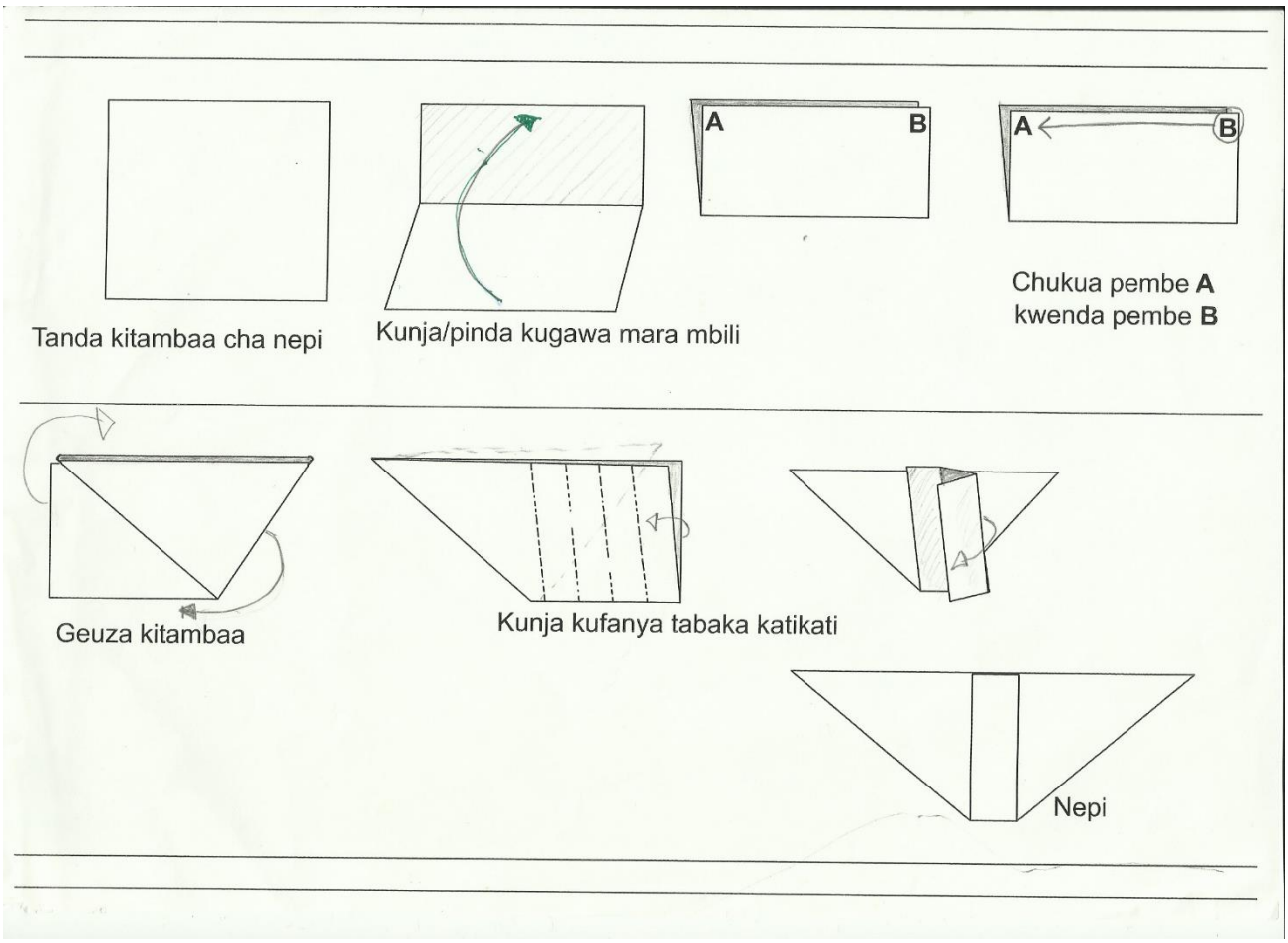
Nepi nene ni muhimu kwa hali ya afya ya usafi pia kwa watoto wenye ulemavu mkali ambao hawawezi kuzuia / kudhibiti mkojo na haja kubwa.
Muombe fundi wa kushona wa kawaida kushona nepi zinazoweza kutumika
Mkunjo wa nepi unatengenezwa kwa nguo ngumu pamoja na kifungo au kamba ya kubania.
Ndani yake ongeza kipande kilichokunjwa cha nepi na unaweza kutumia nguo moja tu ya zamani kama shati ya mikono mifupi au taulo.
Ni muhimu kwamba iwe imekunjwa na kuoshwa na kukaushwa kwenye mwanga wa jua (mwanga wa jua unaua bakteria)

Ask local tailor to sew resusable nappies:

Shell of nappy is made of firm cloth with button or strings to tighten.
Inside add foldable papping and you can use any old cloth at home like old T-shirt or towel.

It is important that is is foldable and possible to open for washing and let to dry in sunshine (sun kills bacteria).

NEPI:


Tanda kitambaa cha nepi
Kunja/pinda kugawa mara mbili
A
B
A
B
Chukua pembe A
kwenda pembe B
Geuza kitambaa
Kunja kufanya tabaka katikati
Nepi

VIFAA VYA WATOTO WENYE ULEMAVU (I-VII)
DEVICES (I-VII)

I Mto maalumu wa mazoezi
Wedge cushion

Vipimo tofauti, rahisi kutengeneza/ kwa kukata godoro matumizi:
Different sizes, easy to make / cut from foam, uses:

Kulalia mgongo:
To lie on back:

- **Msaidie mtoto kufanya mazoezi na msaidie kupunguza kuzidi kwa kujirefusha kwa misuli hasa shingo iliyonyooka.**
  Assists to do exercises and reduces increased hyper extension especially straightens neck.

- **Kama inahitajika inawezekana kutoboa shimo fupi kwenye godoro ili kusaidia katikati kichwa.**
  If needed it is possible to cut a low hollow to foam to keep head in midline.

Kulalia tumbo:
To lie on belly:

- **Msaidie kufanya mazoezi ya kukaza shingo.**
  Helps to practise head control.

- **Kuegemea mikono na kutumia mikono.**
  To support on hands and to use hands.

- **Kwa mazoezi ya kupumua.**
  For breathing exercises.

II Viatu maalumu
Supporting shoes

- **Viatu maalumu vya ngozi ni muhimu kwa urari (balance), kurekebisha kutembea kwa vidole na kurekebisha mkao wa mguu.**
  Special leather orthopedic shoes are good for balance, to correct tip toe walking and position of feet

- **Kama viatu maalumu havipatikani, viatu vya kawaida visivyo vya mchechemeo (vya visigino vifupi) vinaweza kutumika.**
  -if not available any good firm shoes with low heel could be used

- **Viatu visiwe vikubwa au vidogo mno, angalia saizi ya ya viatu wakati mtoto amesimama/ ameweka uzito miguuni.**
  -shoes should not be either too big or tight, check the size while child is standing/supporting weight

- **Kama inatumika fremu ya kusimamia ni vizuri kutumia viatu akiwa amesimama.**
  -if standing frame is used it is recommendable to use shoes while standing

III Vifaa bandia (1-3)
Orthoses (1-3)

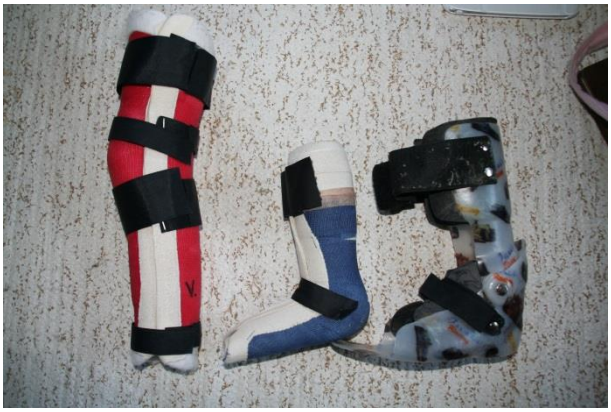
1. Vifaa bandia vya miguu (a-d)
Foot and leg orthoses (a-d)

- **Vifaa bandia vimetengenezwa kwa kila mtu na kifaa chake na kimetengenezwa kwa aina maalumu ya plastiki (polypropylene).**
  Orthoses are individually designed and made of certain plastic polypropylene.

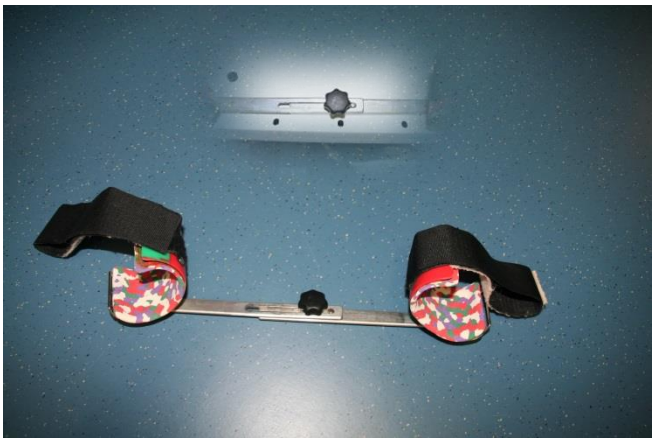
- **Orthoses zinamsaidia mtoto mlemavu kusimama na kutembea kwa kurekebisha mkao wa kifundo cha mguu na kuongeza urari (balance).**
  Orthoses assist handicapped child to get up standing and walking by correcting ankle and foot position and giving balance.

- **Aina mbalimabli za vifaa bandia:**
  Orthoses are different types:

a. **Vifaa bandia vya kutemebelea ni muhimu kwa watoto wenye mtindio wa ubongo ambao watatembea kwa vifaa au bila vifaa vya kutembelea.**
Walking orthoses are mainly for those cp-children, who have walking prognosis with or without walking device.



b. **Watoto wa MMC huhitaji vifaa bandia mara kwa mara.**
MMC children often need orthoses.

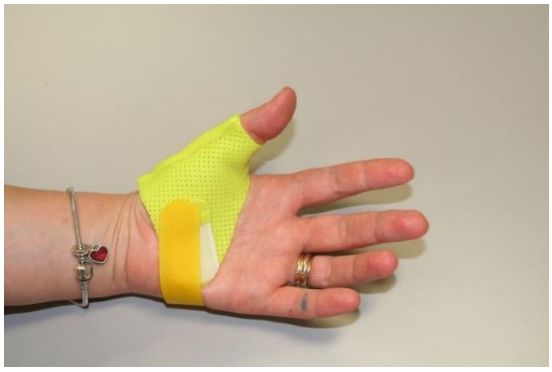
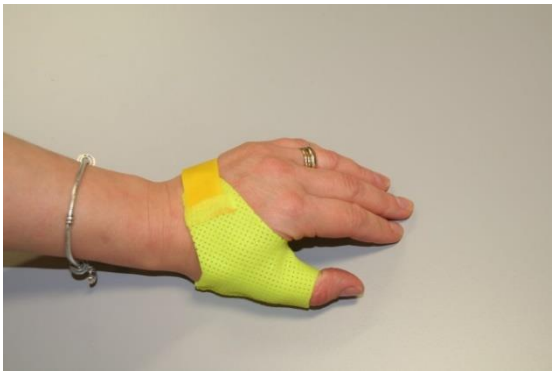
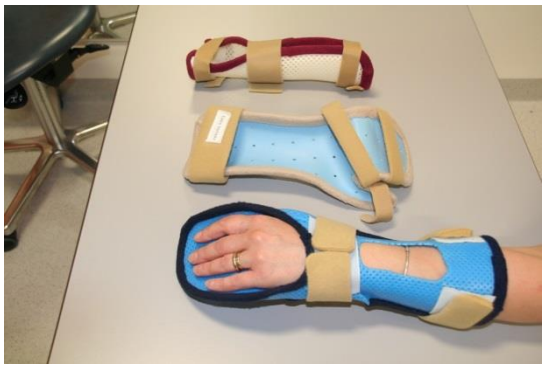
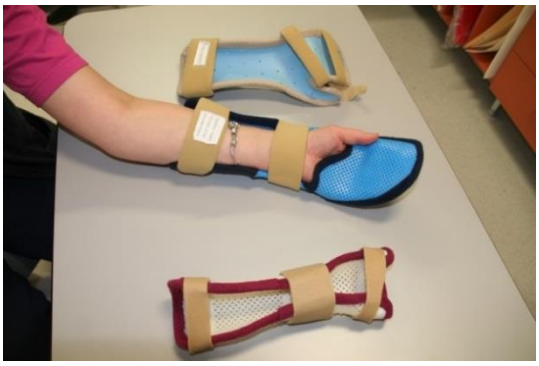


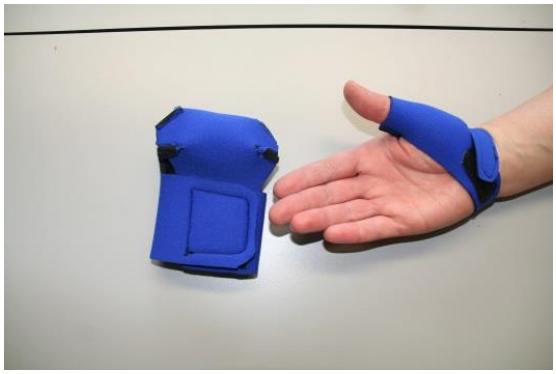
c. **Vifaa bandia vya usiku vinarekebisha mkao wa kifundo cha mguu wakati wa kulala.**
Night orthoses are passively correcting ankle position during sleep.

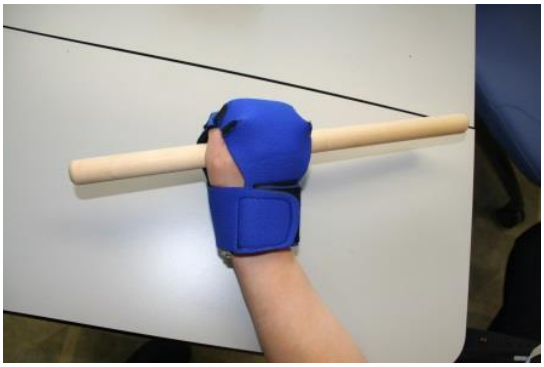
d. **Ni muhimu kwamba vifaa bandia viwe vinamtosha mtoto. Hali ya ngozi ni muhimu kuchunguzwa kila siku wakati wa kuosha miguu ili kuzuia uvimbe na vidonda. Kama vifaa bandia vinabana au vinaharibu ngozi au vinamuumiza mtoto, piga simu haraka au wasiliana na mtaalamu wa vifaa.**
Because orthoses should be fit to the child, they cannot be loose or too tight. Condition of skin be checked daily while feet are washed to avoid blisters and scores. If orthoses are too small or cause skin problems or child is complaining pain, call or contact immediately the device technician.

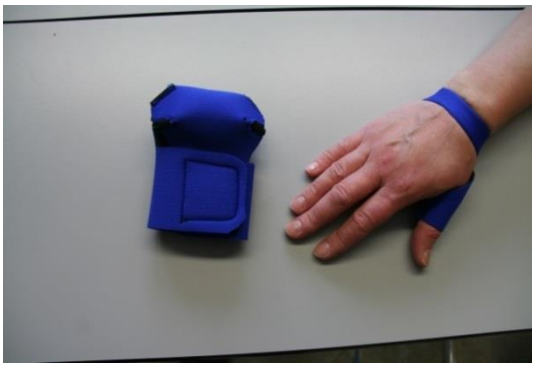
2.Vifaa bandia vya mikono
Hand orthoses

- **Kuna vifaa bandia tendaji vya mkononi kwa matumizi ya mchana au vifaa bandia vya mkononi kwa matumizi ya usiku visivyotendaji.**
There are either functional hand orthoses for day use or passive hand orthoses for night use.







3. Kifaa maalumu cha tumboni na kifua (kama jaketi)
Corsette

- **” Corsette ” ni kifaa kama jaketi kusaidia kuunyoosha uti wa mgongo uliopindia pembeni na pia kinasaidia urari (balance) katika kukaa au kusimama na katika kutembea.**
  Corsette is ment to prevent scoliosis and it also helps sitting or standing and walking balance.

- **Corsette ni inatumika kwa watoto walio na ulemavu mkali tu.**
  Corsette is only for disabled child.

IV Fremu ya kutembelea
Walking frame

Kama inawezekana, jaribu kutumia fremu ya kutembelea (kibagadu) kabla ya umri wa miaka 2 au 3.
If possible, try walking frame latest 2-3 years age

Fremu za kutembelea ni kwa kujitembeza au kutembezwa kutegemeana na ulemavu wa mtoto.

Walking frames are active or passive depending of child´s handicap.

Kwa fremu ya kujitembeza, mtoto ataweza kujifunza kutembea mwenyewe.

By active walking frame the child is able to learn to walk independently

Kwa fremu ya kutembezwa, kunauwezekanao wa mtoto kukaa kama ʻ balance ʻ ya misuli inashindwa au anachoka na ni salama kwa kumsaidia katika kila upande asianguke chini.

In passive walking frame there is possibility to sit if muscle balance fails or chid gets tired and it is safe by giving support in all directions and does not fall down.

V Kiti maalumu
Special chair

Kukaa kwenye kiti maalumu humhamasisha mtoto kusimama na kutembea.
To sit in special chair encourages the child to get up and move.

Mtoto anaweza kuona zaidi na kufahamu zaidi.
Child is able to see more and gets more information.

Kukaza kwa shingo na mwili kunaongezeka.
Head and body control developes.

Uwezo wa matumizi ya pamoja wa macho na mkono huongezeka.

Eye- and hand control improves.

Ni rahisi kumlisha mtoto akiwa amekaa kitini wakati msaidizi wake yupo mbele yake.
It is easier to feed the child while child is sitting opposite to caretaker.

Ni rahisi kula mwenyewe.
Feeding by himself is easier.

Ulishaji na uchezaji na mtoto akiwa kwenye kiti ni mawasiliano, ongea naye, ngoja ajibu na maendeleo ya kimaongezi yataongezeka.
Feeding and playing is socializing, talk to him, wait for response; speech communication will improve.

Muache mtoto akae kwenye kiti nje waliko watu wengine.
Take the child sitting on chair out where there are the other people.

Katika mkao mzuri kwenye kiti matako (makalio) yawe nyuma ya kiti, mgongo umenyooka na kiuno kimepinda kwa nyuzi 90, magoti yamepinda kwa nyuzi 90 na unyayo wa miguu kwenye ubao wa kupumzisha miguu, kisigino chini.

In good sitting position the child´s buttock rests leaning to back of the chair, his back straight hips flexed 90 °, knees flexed 90° and feet resting on footrest, heels down.

Kama inahitajika tumia mkanda wa kuushikiza mwili.
If needed use belts to support body.

Ni jukumu la mtaalamu wa mazoezi pamoja na mtaalamu wa vifaa kupima kiti vizuri na kinapokuwa tayari, hakikisha mkao wa mtoto ni mzuri na salama.
It is therapist`s duty to measure with the technician the chair to be suitable and when ready, check the position.

Kama inawezekana tumia viatu au vifaa bandia vya miguuni wakati wa kukaa.
If possible use shoes or orthoses on feet while sitting.

VI **Fremu ya kusimamia**
Standing support

Ni vizuri kuanza kutumia fremu ya kusimamia katika umri wa mwaka 1-1½ kama mtoto hawezi kusimama mwenyewe au hasimami vizuri. Kwa mfano kama ana mikakamao mikali au ipo chini, mtoto hawezi kujongea kabisa au katika mijongeo mibaya (mtindio wa ubongo).
It is good to start using it at 1-1 ½ year age if child is not able to stand or standing is some how abnormal. For instance if muscle tone is increased or low, child is not moving at all or in very abnormal way (cerebral palsy).

Ni jukumu la mtaalamu wa mazoezi pamoja mtaalamu wa vifaa kupima na kuangalia fremu kama inamfaa mto-to.
It is therapist`s duty to measure and check with the technician, that standing frame is suitable to this child.

Waoneshe wazazi jinsi ya mtoto anavyosimama kwenye fremu:
Demonstrate the parents how the child is standing supported by the frame:

Miguu imepanuka kidogo na miguu inaelekea mbele na visigino chini.
Legs slightly aparted and feet pointing straight forward and heels down

Ni jukumu la mtaalamu wa mazoezi kuwaeleza/walezi wazazi jinsi ya kutumia fremu kila siku kuanzia dakika 20.-30 na taratibu kuongeza muda mapaka saa moja. Unaweza kumsimamisha kunaweza kurudiwa mara mbili kwa siku.
It is therapist`s duty to explain to parents how to use it like every day starting from 20-30 minutes gradually increasing the time up to 60 minutes. Standing can repeated twice a day.

Kama mtoto anaonekana kuchoka, umtoe kwenye fremu.
If the child looks tired, remove from the frame.

Tumia viatu au vifaa bandia vya miguuni wakti wa kusimama kama vinapatikana,
Use shoes or orthosis while standing if available.

Mpe mtoto motisha ya kusimama kwa kumpa midoli (vitu vya kuchezea) juu ya meza au chakula. Mpeleke mtoto ndani au nje kucheza na wengine au sehemu kama jikoni, sebuleni, uwanja wa michezo kuangalia na kufuatilia kazi na michezo.
Motivate the child to stand by giving toys on the table, something to eat. Take the child in or out to the company or other place like kitchen, sitting room, playground, and so on.

VII Faida ya kusimama wakati wa kusimama
Benefits of standing while standing

Mtoto anaona zaidi na anapata kufahamu zaidi.
Child sees more and gets more information.

Anapata ujasiri kujaribu kuamka kutoka kukaa na kusimama.
Gets courage to try to reach up to sitting and standing

Mifupa inakuwa vizuri kuhimili kubeba uzito.
Bones develop well to carry weight

Huzuia ulemawu au kuvunjika kwa viungo au uti wa mgongo.
Prevents joint and backbone deformities and fractures

Ni rahisi kupumua.
Breathing is easier.

Misuli inakuwa na nguvu.
Muscle tonus improves.

Kukaza kwa shingo na nguvu ya mwili huongezeka.
Head and body control develop.

Ni rahisi kutumia mikono.
It is easier to use hands.

Ushirikiano wa pamoja macho na mikono huongezeka.
Eye- hand co-operation developes.

VITI VYA MWENDO
WHEELCHAIRS

Kuna viti vya mwendo vya aina nyingi:
Wheelchairs are several types:

Mtoto anaweza kutumia mikono kuendesha na mzazi atamsaidia inapohitajika. Mgongo ukiwa umenyooka na mtoto unahitajika mkanda mwembamba kwaajili ya usalama.
Active, child is able to roll it independantly and a parent is able to assist when needed. Back is straight and only narrow safety belt is needed.

Kama mtoto ana ulemavu mkali na hawezi kutumia mikono mzazi au mlezi huendesha kiti cha mwendo kwa kusukuma. Mgongo wa mtoto kwa kawaida huinama na mikanda miwili inatumika angalau kuusaidia mwili. Wakati mwingine inahitajika kutumia kifaa maalumu kwa kusaidia kichwa na shingo pia
Passive, child is not able to use hands for rolling, a parent is pushing. Back is often tilted backwards and more and broader belts are needed to support the body. Sometimes head also needs support.

Kutumia kiti cha mwendo vizuri na usalama:
Safety of a wheelchair:

Therapisti au fundi au mhudumu anayetoa kiti cha mwendo kwa mtoto ni lazimishwa amfundishe mtoto, wazazi na walezi kwa usalama wa kifaa. Funga breki kwanza kabla ya kumuweka mtoto kwenye kiti. Funga mikanda ya usalama. Hakikisha kiti si kidogo amabacho na hakianguki kwa urahisi. Wasisitize wazazi na walezi wakague mazingira ya nyumbani kama ni salama, kama kuna vilima, mashimo, mabwawa n.k. ili kuzuia ajali.

Therapist or techinician must teach the safety measures to the child and caregiver every time a wheelchair is given: always put breaks on first, then assist the child to sit. Close safetybelt or other belts also. Check the type and size of a wheelchair that it does not fall down. Supervise caregivers to check the surroundings where it is safe for a child to use a wheelcair independently: hills, ditches, water ponds to avoid accidents.

Kiti cha mwendo kama vifaa vyote vinahitaji kusafishwa mara kwa mara kwa sabuni na maji. Fundi baiskeli anaweza kusafisha vumbi na mchanga, kuongeza upepo kwenye matairi, kuongeza mafuta (grisi) na kutengeneza matairi na marekebisho mengine.

Wheelchair as other devices also needs cleaning. Local bicycle technician is able to service the wheels: clean, oil and add pressure, patch tyres.

NGUO ZENYE UZITO /Vifaa kwa kumtuliza mtoto mtukutu

WEIGHT CLOTHES/Devices to give deep sensory stimuli to control hyper activity and attention defict

KOTI LA MIFUKO ni nguo maalumu. Jaza mifuko kwa vipande vya chuma au mawe madogo na funga mifuko vizuri. Uzito wa koti ni 10 % ya uzito ya mtoto. Tumia koti hili kwa mtoto mtukutu wakati wa kukaa kwenye kiti.

JACKET is vest-like cloth child is wearing during activities like eating, exercises and so on. It has many small pockets that can be filled by small pieces of metal, stones or sand. Try to make front and back weight balanced. Maximum weight should be 10 % of childs weight like 15 kg child is wearing jacket weight 1,5 kg.

BLANKETI LA MIFUKO ni blanketi maalumu. Jaza mifuko kwa mawe midogo au mchanga, funga mifuko vizuri. Unzito wa blanketi hii ni 7 kg kwa mtoto mdogo na 10-15 kg kwa mtoto mkubwa.

Tumia blanketi hili kwa mtoto mtukutu kumtuliza na ondoa baada ya mtoto ameshalala.

BLANKET is also full of small pockets you can fill by small pieces of metal, stones or sand. Using blanket like this helps child to rest, to calm down. It should be removed when the child starts sleeping. Weight of blanket for small children is 7 kg, for big children 10 kg or 15 kg.

MTO MZITO ni mto maalumu kama mfuko mkubwa kwa umbo la ndizi. Jaza mto kwa mchanga mpaka uzito wa 2-3 kg na funga vizuri. Tumia mto huu juu ya mapaja ya mtoto mtukutu wakati wa kukaa kwenye kiti.

LAP WEIGHT is banana shaped cushion full of sand. Child uses it while sitting at the table like for eating or doing exercises. Lap weight is 2 kg or 3 kg.

If you use sand or small stones pack them separately to cloth or plastic closed sealed bags so that child is not able to put it to his mouth! After weighing the device suitable to childs size it is safer to sew stitches to seal the material inside the pockets.

KWA MATATIZO YA KUONGEA

NA MWASILIANO

10-3-2014

SPEECH AND COMMUNICATION PROBLEM

Mawasiliano
Communication

Mawasiliano ni hitaji la msingi la binadamu wote. Kuanza kutafuta mahusiano kati ya macho na ngozi na kuongea kwa mtoto kunaanza tangu anapokuwa tumboni. Mchunguze mtoto kwa uangalifu. Subiri mtoto aitikie: anatazama, anatabasamu, anashituka-haya tayari ni mawasiliano. Kama amechelewa kuanza kuongea au haongei, inapendekezwa kuanza kumfundisha mazoezi ya kuongea na kutumia alama mtoto akiwa na umri wa mwaka mmoja. Katika umri wa mwaka 1,5 mtoto anaanza tu kujifunza kuelewa picha. Kutumia ishara, alama, maelezo kwa kutumia sura na kubadilisha sauti (sauti nyororo na ya upole) kunamvutia mtoto na kumfanya aigize na kujifunza maneno na kuongea.

Communication is a basic need for all human beings. Start to seek eye and skin contact and speak to the child beginning from the birth. Observe the child carefully. Wait for the childs response: glance, smile, excitement – this is already communication. If speech is delayed or missing, start preferred at one year of age to do exercises and use signs. At the age of 1-1,5 years of age the child is just starting to learn to understand pictures. Using gestures, signs, facial expressions and variable tone of voice will attract the child and make him to imitate you and learn words and speech.

I Mazoezi ya kumsaidia mtoto kuelewa mazumgumzo na kujieleza

Exercises to promote speech under standing and expression

- **Zungumza mbele ya mtoto uso kwa uso kwa kutazamana machoni.**

  Speak to child in front of him in good eye to eye contact.

- **Tumia sentensi bayana na fupi na kumpa shauri moja tu.**

  Use short clear sentences and give only one clear order at the time.

- **Tumia maneno kwa vielelezo vya picha, michoro au vitu halisi, ukisema kuhusu vitu hivyo mara kwa mara wakati huo.**

  Viasualize words by pictures, drawing or real object, always speak at the same time.

- **Fafanua maneno magumu katika sentensi kwa kutumia picha.**

  Emphasize critical words of the sentence by using pictures.

- **Fafanua mazungumzo yako kwa kutumia hisia za uso, ishara ya mkono na kiimbo kumsaidia alewe kwa rahisi.**

  Use facial expression, gesture and intonation to articulate your own speech to make it easier to understand.

- **Fanya mazoezi ya kutaja popote na chochote kinachoonekana katika mazingira ya mtoto na taja na kuonesha vitu kama vile ma-koche, nguo, vyombo, chakula, miti, maua, wanyama na kadhali-ka.**

  Practice naming: wherever and whatever you see in childs surround ings name and show the thing like furniture, clothes, dishes, foods, trees, lowers, animals and like that.

- **Kwanza onesha na kutaja, halafu taja na mtoto aoneshe, baadaye mtoto aoneshe na kutaja.**

  At first you point and name, then you name and child points, later child points and names.

- **Tumia nguvu zote kumuhumiza mtoto kujieleza na kuwasiliana kwa alama zake mwenyewe, kufanya vitendo au kutaja kwa maneno mapungufu au kwa kuonesha vitu na picha.**

  Encouridge childs all efforts to express and communicate like his own signs, doings or clumsy incomplete words or pointing by pictures.

- **Ukielewa mtoto anachotaka kusema, sema wewe kwa sauti kama mfano. Usimsukume mtoto kuigiza, umuhimize anapojaribu.**
  When understanding what the child wants to say, say it yourself aloud as an example. Don't push the child to imitate, encouridge when he does.

- **Daima usimlazimishe mtoto kusema barabara.**
  Don't ever try to force child to say correctly.

- **Kumbuka kumsifia mara kwa mara na kushukuru wakati mtoto anapojaribu kuwasiliana na kujieleza.**
  Always remember to praise and thank child when he is trying to communicate and express himself.

- **Tafuta vikundi vya watoto kwa mtoto wako kama vile shule ya chekechea, shule ya kanisa au vikundi vya tiba ili mtoto apate changamoto kutoka kwa wenzake wa umri sawa.**
  Seek for childrens groups for your child like play schools, Sunday schools or therapy group so that the child gets challenging situation and encourdgement from his age group.

- **Wakati wa umri wa kwenda shule- muandikishe/mpeleke mtoto shuleni.**
  At schooling age send the child to school.

II Mazoezi ya kumsaidia mtoto kujieleza kwa kuongea

Exercises to improve childs speech expression

Tumia kioo kama inawezekana ili mtoto aweze kuona jinsi mdomo, midomo na ulimi wake unavyotembea.
Use mirror if possible so that child can see kow his ja yours mouth, lips and tongue are moving.

Fanya silabi kuigiza kama vile pa-pa-pa, pi-pi-pi, pu-pu-pu, ta-ta-ta na zingine.
Make syllables to imitate like pa-pa-pa, pi-pi-pi, pu-pu-pu, ta-ta-ta and others.

Unganisha silabi (tengeneza kodi yako ya siri!) kama vile pa-pi, po-pu, pi-pu, pa-ta, pe-te au pa-pe-pi, pa-ta-ka na kadhalika.
Connect syllables (make your secret code) like pa-pi, po-pu, pi-pu, pa-ta, pe-te au pa-pe-pi, pa-ta-ka and so on.

Muhimize mtoto kuigiza vitu rahisi kama vile sauti za wanyama, vimako kama vile Hi! Ups! Huii! Lo! na maneno mengine yaliyo rahisi au maneno yenye silabi moja au mbili. Kama inabidi ufanye iwe rahisi kutamkika maneno kwa silabi.
Encouridge the child to imitate easy things like animal sounds, exclamations like Hi!, Ups!, Huii!, Lo! and simple one or two syllable words. If needed, make it easier by saying the word by syllables.

III MAZOEZI YA MDOMO NA ULIMI KWA WATOTO AMBAO WANAUDELELE WA MATE NA/AU HAWASEMI VIZURI AU HAWAONGEI MAZOEZI HAYA NI MUHIMU SANA PIA BAADA YA OPERESHENI YA ULIMI

EXERCISES OF MOUTH AND TONGUE TO CHILDREN WHO ARE DROOLING AND/OR SPEAK UNCLEARLY CLUMSILY AND/OR ARE NOT ABLE TO SPEAK THESE EXERCISES ARE ALSO VERY IMPORTANT AFTER TONGUE RELEASE OPERATION

Tumia kioo kama inawezekana ili mtoto aweze kuona jinsi mdomo na ulimi unavyotembea (fanya na kumshauri mtoto aigizie).

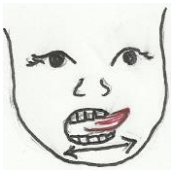
Use mirror if possible so that the child can see how mouth, lips and tongue are moving (you do and advise the child to imitate).

Acha mdomo wazi na sukuma ulimi nje na ndani na kurudia hivyo mara kwa mara.

Keep mouth open and push tongue out and in and repeat several times.

Tembeza ulimi nje ya mdomo taratibu kutoka upande mmoja mpaka upande mwingine.

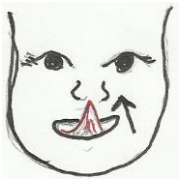
Move tongue slowly from side to side repeatedly.



Tembeza ncha ya ulimi ndani ya mdomo taratibu juu na chini ya mdomo kama vile unasema Laa-laa-laa.

Move tongue tip slowly up and down inside mouth as if you where saying Laa-laa-laa.

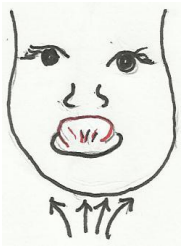
Tembeza ulimi mbele nje ya mdomo kuelekea juu ya meno na pua, rudia.



Move tongue forward towards upper teeth and nose, repeat.

Peleka ncha ya ulimi wako nyuma ya meno ya juu na uupeleke ulimi ndani na rudia.

Lift your tongue tip behind your upper teeth and move it back and forth along the palate.



Usambaze ulimi na gusa juu ya mdomo.

Widen tongue broad and touch upper lip.

Uupinde ulimi na kuuweka nyuma ya meno ya juu na rudia hivyo.

Roll tongue and place it behind of upper teeth and repeat.

Puliza unyoya au vitu vyepesi.

Blow feather or light thing similar.

Puliza maji ya sabuni kwa mrija kutoa mapulizo

Blow bubbles into soap water by straw.

Tumia mrija msafi kuvuta maji au vitu vyovyote vya majimaj.

Use clean straw for sucking water or other liquid.

Piga busu hewani.

Send flying kisses.

Fanya mazoezi ya kutafuna kama vile karoti, matunda magumu na kadhalika.

Practice chewing by carrots, hard fruits and so on.

Chua mashavu na midomo taratibu.

Do facial massage on cheeks and lips.

Ulla Maija Ritanen Daktari wa watoto na watoto walemavu Pediatrician/Neuropediatrician
Rotary Doctor Bank of Finland

Riitta Luukkonen Daktari wa matatizo ya kuongea Speech therapist
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Riitta Luukkonen

Speech Therapist 2014

IV JINSI YA KUTUMIA PICHA KUSAIDIA UONGEAJI, UELEWAJI NA UONGOZAJI WA KWA VITENDO

HOW TO USE PICTURES TO SUPPORT SPEECH, UNDERSTANDING AND FUNCTIONING

1. Picha ni nzuri kwa?

To whom we use pictures?

*** Matatizo ya uongeaji na uelevu, watoto walio vibubu (wasiiongea)**
*** Watoto wa udumavu wa akili**
*** Watoto wa usonji**
*** Watoto walio na matatizo ya umakini, watoto watukutu**
*** Watoto wasioweza kuwasiliana**
*** Watoto wasioweza kufuata maelekezo na vitendo kwa maelekezo kwa muda mrefu**

- Problems with speech and language understanding, mute children
- Mentally retarded
- Autistic children
- Concentration problems
- Contact and communication problems
- Problems with attention and functioning

Picha ni rahisi kuelewa na zinasaidia watu wote kuelewa na kukumbuka maelekezo na kupata kujifunza vizuri, wakati tunaongea na wakati huohuo kutumia picha na kusema sentensi fupi ni rahisi kueleweka.

Pictures are easy to understand and help every one of us to understand and remember what we hear and learn.

2. Picha za aina gani?
What kind of pictures to use?

Ili kusaidia mawasiliano kwa mtoto picha zinahitajika kuwa rahisi na kubwa kuweza kuangaliwa kwa urahisi na kuonekana vizuri.

To support communication the picture needs to be simple and easy to look at.

Tunawaeza:

*** Kuchora picha**
*** Kuzikata kutoka magazetini**
*** Kutumia picha za kupigwa kamerani**
*** Kuzichapa kutoka picha zilizo kwenye kompyuta**

We may:

- Draw the pictures
- Cut them from the magazine
- Use photos
  Print from the computer

3. Tunatumia picha kwa
We use the pictures to

*** Kumkumbusha muda mtoto**
*** Kumsaidia kupanga vitendo**
*** Kumfundisha uongeaji na uelevu**
*** Kumsaidia kwa kumbukumbu zake**

- Structure the time
- Help to organize functioning
- Promote speech and understanding
- Promote memory

4. Kupanga ratiba (muda wa matukio/vitendo)
How to structure the time?

*** Kwa mpangilio wa ratiba (matukio/ vitendo vya siku) tunamsaidia mtoto kupanga vitendo vya siku na kuelewa matokeo yatakayotokea kwanza, baadaye na mwishowe.**

*** Ratiba ya siku humsaidia kuelewa na kujitayarisha kikamilifu kwa wa vitendo vya siku kwa kujua vinavyotokea na vitakavyo kuja kutokea.**

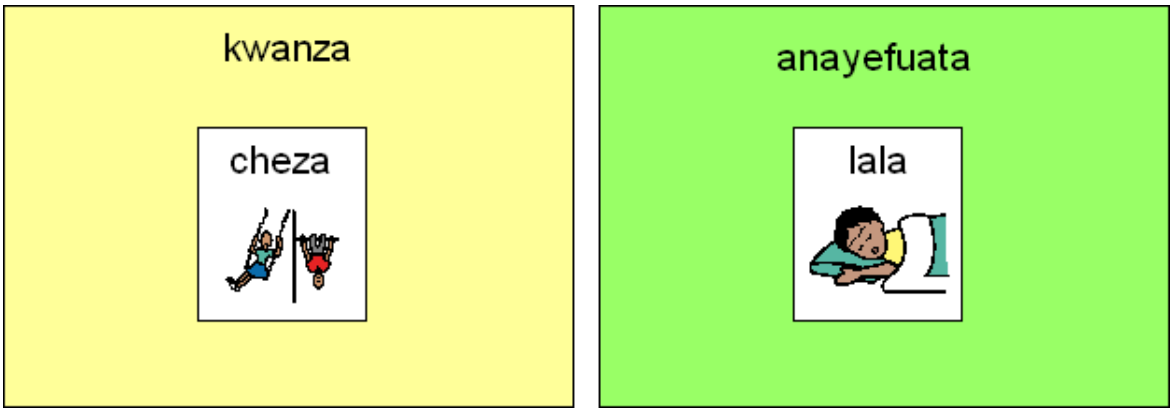
*** Ratiba ya siku itamsaidia kujitayarisha kwa mabadiliko ya vitendo na matukio ili kujiandaa na kuanza tukio jipya bila pingami-zi.**

- With daily schedule we help the child to organize the day and understand what happens first, next and after that.
- **Daily schedule** helps to anticipate what is going to happen.
- It helps to prepare the child to change the plan and start something new.

*** Inategemea na umri wa mtoto na hatua yake kimaendeleo, ratiba ya siku inaweza kuwa ndefu ya siku nzima au fupi kama vile asubuhi tu, au matukio kwa saa, ya wakati huo au yatakayofuata.**

- Depending on the age and developmental level of the child, the daily schedule may include the whole day, a part of the day or just what happens now and what happens next.

Inayofuata



*** Umsaidie mtoto kufuata na kuelewa ratiba kwa kumuonesha picha na kwa kumueleza kwa maneno machache kitakachotokea.**
*** Chukua picha kwa kumbukumbu.**
*** Kama umeshamaliza na kuhamia kwenye picha nyingine, pindua picha chini juu juu chini ili kuonesha kuwa imeshamalizika.**
*** Kama mtoto anahitahjika kukumbuka onesha picha tena kwa kawaida, si juu chini chini juu.**

- Help the child to follow the schedule by showing him the next picture and telling him by a few words, what is going to happen.
- Take the picture with you as a reminder.
- When you are ready and move to the next step, turn the picture upside down to show that it is done.

5. Kupanga vitendo
Organizing functioning

*** Picha humsaidia kuelewa wapi pa kuanza na jinsi ya kuendelea na muda wa kumalizika.**

- Pictures help to understand where to start something, how to continue and when you are ready.

Dress

*** Umsaidie mtoto kufuata picha.**
*** Kidogo-kidogo acha kumfafanulia, mpe nafasi ajifunze kufuata mwenyewe na msaidie pale inapohitajika.**
*** Picha humsaidi kuwa makini na kufanya vitendo mwenyewe**
*** Picha humkumbusha ratiba, malengo na makubaliano.**

- Help the child to follow the pictures.
- Gradually let him learn to follow it by himself and help him, if necessary.
- Pictures help to concentrate and to do things independently
- Pictures remind of rules and agreement

Put away



6. Mazoezi ya kumsaidia mtoto kuelewa mazumgumzo na kujieleza

To promote speech and understanding

*** Picha humsaidia kwa mawasiliano na uelevu wa maongezi vizuri.**
*** Picha humsaidia kwa mawasiliano hususan mtoto mwenye udhaifu wa kuongea au asiyeongea.**
*** Picha zinamsaidia kujifunza maneno na misamiati, muda nafasi, rangi, namba n.k.**
*** Picha husaidia kujibu maswali, kuelezea mahitaji na mategemeo kutoa maamuzi mwenyewe.**

- Pictures promote contact and help to understand speech better
- Pictures promote unclear or absent speech
- Pictures help to learn the vocabulary and concept (time, place, colours, numbers …)
- Pictures help to answer the questions, to tell about needs and wishes, to make decisions.

Umuelezee kwa ufasaha wakati unamuonesha picha.

Unahitajika kutumia picha kila mara katika shughuli za kila siku.

Uwe mfano mzuri katika matumizi ya picha kwa mtoto kwa maongezi.

Weka picha pazuri na vizuri ili mtoto aweze kuona na kuzifikia kwa urahisi.

Kumbuka muelekeo kutoka kushoto kwenda kulia, na kutoka juu kwenda chini.

Always speak simultaneously when you show the picture.

You need to use pictures regularly in daily situations.

Give the child a good example how to speak with the pictures.

Put the pictures so that the child may see and reach them easily.

Remember the direction from left to right, from up to down.

V Picha za kuchorwa kusaidia mawasiliano

Drawing pictures to promote communication

Picha za kuchorwa kusaidia mawasiliano.

Kuchora picha ni jinsi nzuri ya kusaidia katika mawasiliano hasa pale mambapo alama au picha zilizochapwa tayari au njia zingine mbadala hazipatikani.

Mawasiliano kwa kuchora picha hayahitaji ujuzi wa kuchora. Michoro inaweza kuwa rahisi. Wakati tunazichora pia tunazitaja na kusema majina.

Jinsi ya kuchora

1. **Chora picha rahisi kwa haraka.**
2. **Kama unachora, chora picha inayojitosheleza, si kama alama ya kuuliza katika picha si sahihi jaribu kuchora zaidi.**
3. **Sema maneno ya picha kwa mtoto unayewasiliana naye, sema kwa ufasha na sentensi fupi.**
4. **Onesha picha sahihi kwa kidole.**
5. **Uchore picha mpya kama zinahitajika.**
6. **Kama unadhani kuwa umeelewa mwenzako anachotaka kuwasiliana nawe, uliza ili kuhakikisha kwamba umeelewa vizuri.**

Angalia ukurasa 149-150.

See page 149-150.

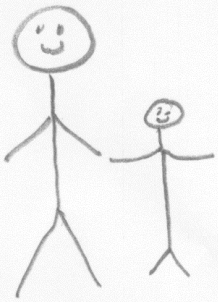
Riitta Luukkonen
Speech therapist 2014

Drawing pictures to promote communication

Drawing is a fine way to promote communication, when ready made pictures, signs and other alternative and augmentative communication is not available.
To communicate by drawing doesn´t depend on or demand special drawing skills.
Pictures may be simple. We also speak and name the pictures when we draw them.

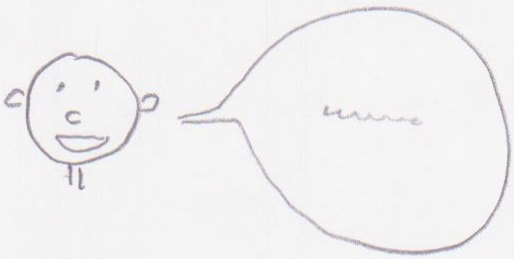
How to draw?

1. Draw quickly, simple pictures.

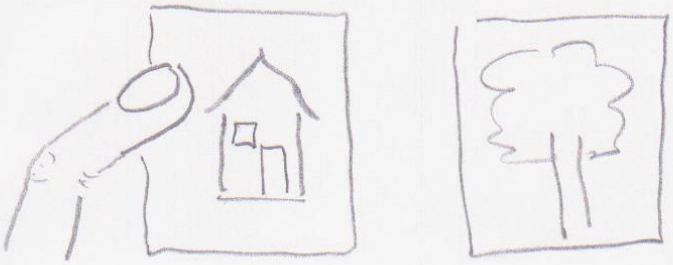


2. The qestionmark drawn with the pictures means
- " non of the alternatives is right, please draw more"

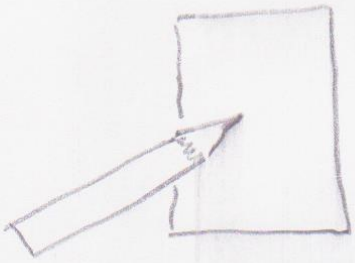
3. Say the names of the drawn alternatives to person you communicate with. Speak clearly with simple sentences.



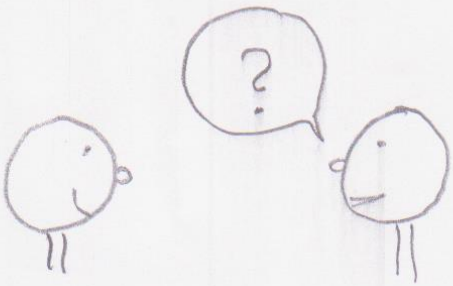
4. Point the right alternative by your finger



5. Draw new alternatives, if needed



6. When you think you understand what other person wants to communicate, ask to make sure that, you understood correctly.



Päijät-Häme Central Hospital Child Neurological Unit

Ulla Maija Ritanen, pediatrician, neuropediatrician

Riitta Luukkonen speech therapist
Irma Tarvainen, physiotherapist

MAZOEZI YA KUPANGA VITU KWA KIKAPU

BASKET EXERCICES

Jinsi ya kufanya mazoezi ya kufanya mwenyewe kwa watoto wenye matatizo ya kiakili na watoto wa usonji

A Structured way of training skills for mentally retarded and autistic children

*** Chagua ujuzi mchache muhimu ulio nao kwa mazoezi kwa kipindi hicho na mazoezi rahisi ya kufanya pamoja nao.**

*** Panga vitu ndani ya vikapu kwa mazoezi. kwa njia hii unamsaidia mtoto kuelewa anachotakiwa kufanya na jinsi ya kufanya na kwa muda gani itachukua kufanya.**

*** Weka vikapu kiasi kwamba mtoto anaweza kuvichukua mwenyewe na kuiviondoa wakati mazoezi yanapomalizika.**

- Choose a few (3-4) important skills to train at the moment and sim ple exercices to train them with.

- Take a few baskets to put the exercices and materials in. This way you help the child to know what he is going to do and how long it lasts.

- Put the baskets so that the child himself can take the basket and put it away when the exercice is done.

*** Muda wa Mazoezi ni mfupi kiasi cha dakika 10-15.**

*** Chagua mazoezi ya mwanzo yaliyo rahisi na yenye motisha kwa mtoto – kitu ambacho anaweza kujifunza kukifanya vizuri.**

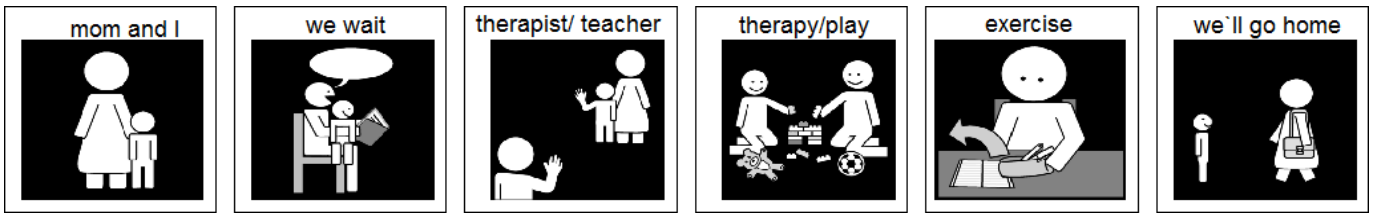
*** Zoezi linalofuata na vilevile la baadaye ni gumu kidogo na la kumfanya ajifunze ujuzi mpya.**

*** Malizia mafunzo kwa mazoezi yaliyo rahisina yanayotoa motisha kuyafanya.**

- The whole session may last 10-15 minutes.
- Choose the first exercice to be quite easy and motivating to the child – something he is about to learn to do well.
- Next one or two exercices may be more demanding – training new abilities.
- End the training session with a simple and motivating exercice.

Mshukuru na mpongeze mtoto kwa kila kizuri anachofanya.
Kama inahitajika, kwa mwanzoni unaweza kutoa zawadi ndogo ndogo kama vile biskuti, au matunda. Baadaye kumshukuru au kumpongeza kunatosha.

Thank and praise the child after every good effort
If needed, at first you may use a tiny piece of buisquit or fruit to thank. Later on it might be enough just to thank and praise him.



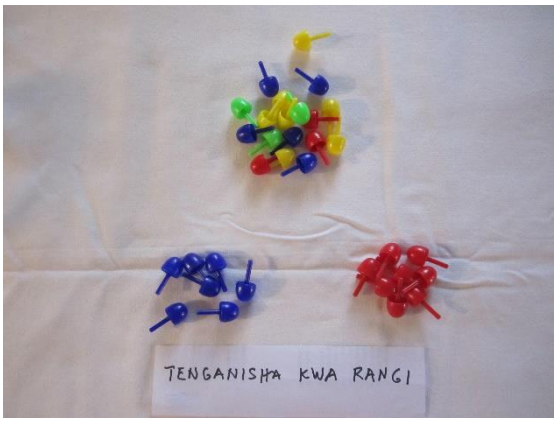
Weka muda wa kazi kuwa mdogo na wa kikomo kwa kutumia saa yoyote na anaweza kufuata muda.
Keep working periods short time limited using watch or any timer and he is able to follow the time passing and remaining.

- **Lengo la kwanza ni kupata mawasiliano.**
  First aim is to get contact somehow.

- **Anza kwenye sehemu iliyoyautulivu, ni vizuri kuwa wewe, mtoto na wazazi tu.**
  Start in peaceful area, preferebly you, child and parent only.

- **Iweke tabia yako mwenyewe kuwa ya utulivu, sauti yako ya chini au hata kunongóna.**
  Keep your own behaviour very calm, your voice silent or even try whispering.

- **Unaweza kusema kitu ili kumtuliza lakini kwa kurajibu, mara ya kwanza ni kukaa karibu naye pembeni yake au mbele yake bila kumkodolea macho yako kwa yake.**
  You may say something soothing but the first try is to sit close either side by side or opposite to child without staring into his eyes.



- **Mpe kazi rahisi kama vile vitu vyekundu na buluu na modeli zilizopangwa kutokana na rangi.**
  Give a simple basket task like cubicles red and blue and model arranging them in according to colour.

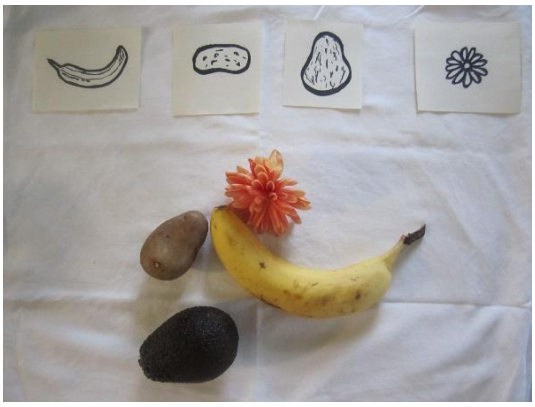
- **Rudia kumodeli.**
  Repeat modeling.

- **Halafu mpe polepole mtoto vitu kuvimodeli kupangilia kwa kumsaidia mkono wake.**
  Then give the cubicles slowly to child modelling arranging by assisting his hand.

- **Halafu unaweza kumuomba aendelee na kumngojea yeye afanye hivo**
  Then you may ask him to continue by waiting for him to do.

- **Akifanya hivyo mara kadhaa, badilisha kazi.**
  When this is done several times, change the task.

Kazi mbalimbali :
Different tasks:



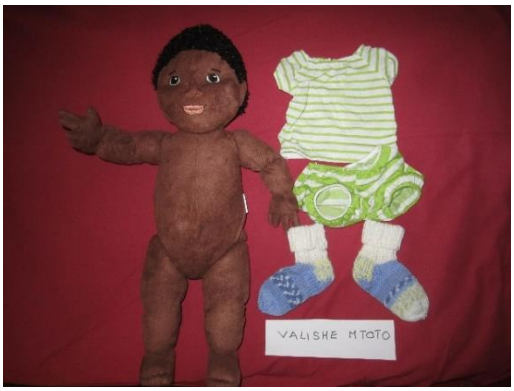
Unganisha kitu na picha.
Put a thing and picture together.

Unganisha picha mbili sawa.
Put two similiar pictures together.

Panga vitu vinavyolingana na panga tena kuwa vigumu.
Arrange things that belong together and gradually make it more difficult.

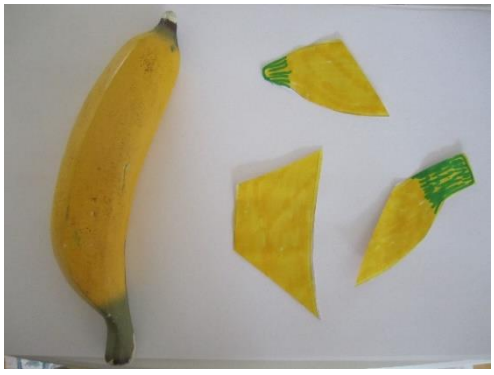
Taja vitu mbalimbali vinavyolingana.
Name different things.

Nipe kitu – Chukua kitu
Give me – bring me



Kumvalisha - kumvua.
Dress - undress.

Taja sehemu za mwili.
Name parts of the body.



Tenganisha kipande cha mchecho.
Do pieceplay.

- **Kama mtoto ameshajifunza fikra(idea) anza kuweka zamu.**
  When child has learned the idea start making turns.

- **Baadaye muongoze kwa mtindo wa "Unipe – Nikupa" kama mtindo wa ushirikiano.**
  Then superwise I give you-You give me type of sharing.

Muimbe pamoja.
Sing together.

Umruhusu kuruka.
Allow the child to jump.

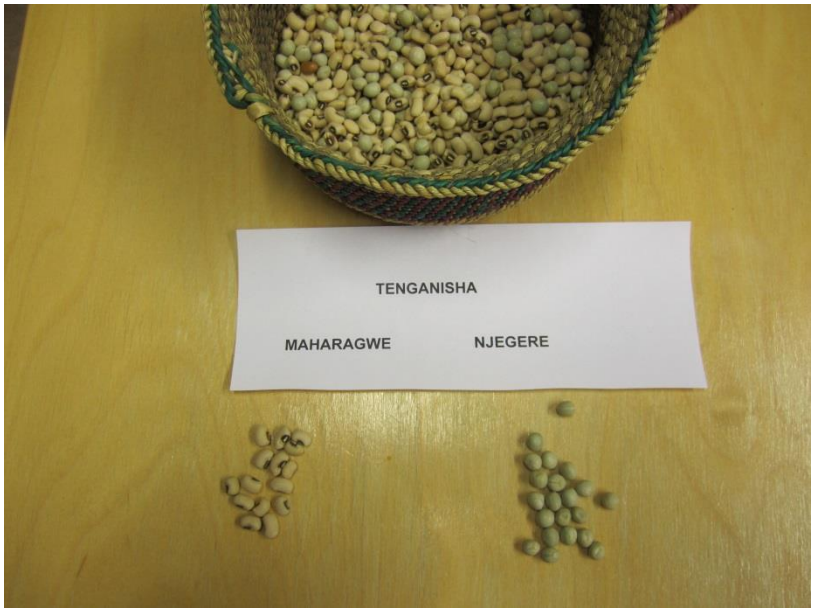
- **Tumia sentensi fupi za maneno moja-mbili-tatu na mwanzoni usiyabadili.**
  Use short one-two-three word sentences and dont change them at first

- **Tumia maneno ya kumpongeza, au kumsifia kama zawadi ama kitu amabacho mtoto anataka kula au kufanya, zawadi inatolewa baada ya kutimiza kazi, hata ikiwa ni ngumu kiasi gani, zawadi ni kwa ajili ya kujaribu.**
  Use rewards verbal praising and something the child wants to eat or do, reward is given after task is done, no matter how difficult it was, it is a reward for trying.

Mtoto atapata "pesa" kama sarafu tano, atapata zawadi biscuti.

TENGANISHA

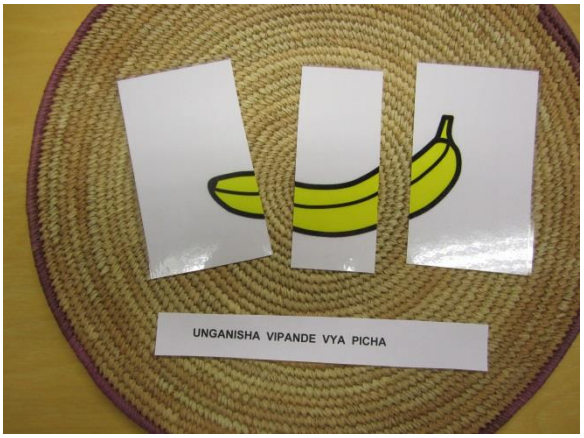
MAHARAGWE NJEGERE



TENGANISHA

MCHELE MAWE

UNGANISHA VIPANDE VYA PICHA

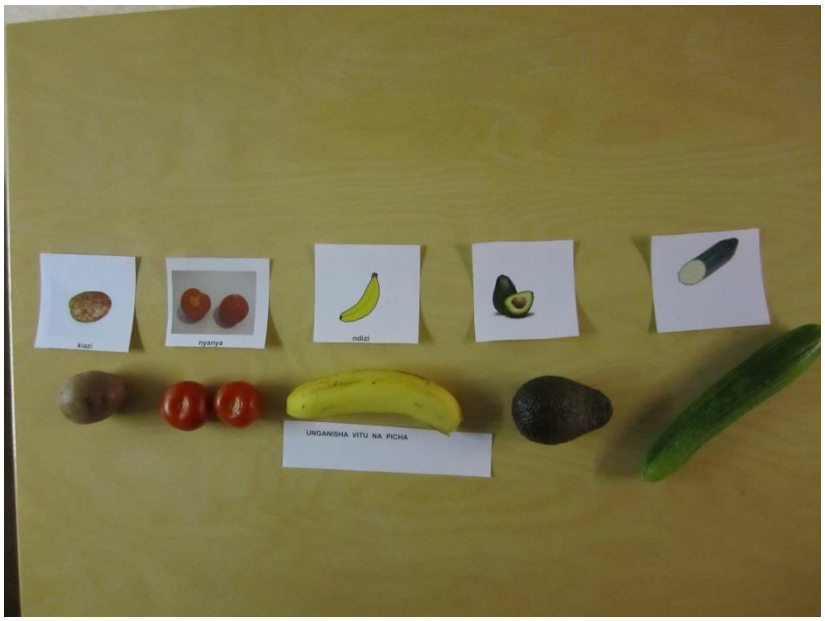


TENGANISHA KWA RANGI

TENGANISHA KWA UKUBWA

TENGANISHA PESA

UNGANISHA VITU NA PICHA

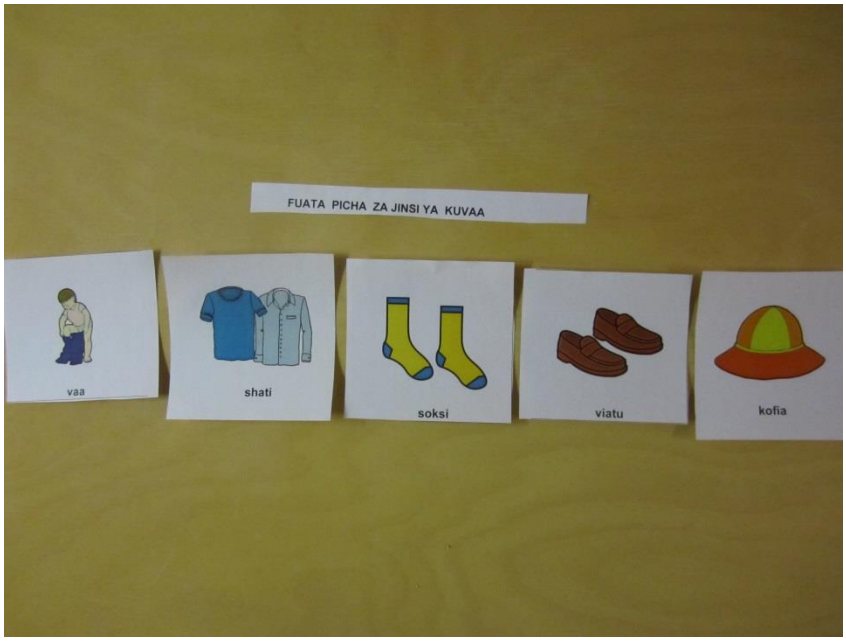


UNGANISHA VITU NA RANGI

UNGANISHA CHAKULA (MATUNDA, MCHELE, ULEZI, MAHARAGWE, NJEGERE, KARANGA NA KADHALIKA) NA PICHA NA MSEME MANENO PAMOJA

UNGANISHA CHAKULA(UGALI, MCHUZI, MKATE, NYAMA, MAZIWA NA KADHALIKA) JA PICHA NA MSEME MANENO PAMOJA

MFUATE PICHA ZA KUVAA



MFUATE PICHA ZA KUOGA

MFUATE PICHA ZA KAZI ZA NYUMBANI KAMA KUFAGIA, KUPIGA DEKI, KUFUA NGUO, KUSAFISHA MBOGA NA KADHALIKA

JINSI YA KUMLISHA MTOTO MWENYE MATATIZO YA KULA (KUTAFUNA NA KUMEZA) KWA AJALI YA UDHIBITI WAHISIA ZA MDOMO?

HOW TO FEED A CHILD WITH MOTOR AND SENSORY EATING PROBLEMS?

1.Kumlisha mtoto vizuri(1-6)

1.Good feeding/eating(1-6)

*** Hali ya kumlisha ni muhimu kuwa nzuri na ya utulivu.**
*** Inahitajika kuwepo na mawasiliano ya karibu kati ya mama na mtoto.**
*** Mkao wa mtoto wakati wa kumlisha ni muhimu.**
*** Ulaini wa chakula uwe wa kuridhisha na mzuri.**
*** Matumizi ya vifaa vizuri vinavyohusika kama vile kutumia kijiko kidogo.**
*** Jinsi nzuri ya kumsaidia mtoto kula ni muhimu.**

- The situation should be nice and calm.
- The contact between the care taker and the child should be intensive.
- Childs position while eating is important.
- The texture of the food should be right.
- Right kind of utensils.
- Techniques of feeding is important.

Kabla ya kumlisha mtoto tayarisha mazingira yafaayo kwanza.

Always prepare the child to the eating situation first.

*** Umwambie mtoto kwa maneno au picha kuwa ni muda wa kula chakula**

*** Mtayarishe kwanza kwa kufanya mazoezi ya mwili, mikono, kichwa na mdomo.**

- Tell him with words and pictures that it is mealtime
- Prepare the body, the hands, the head and the mouth by exercises

Lengo ni kumsaidia mtoto kula vizuri na kuzuia matatizo ya kutafuna na kumeza. Tunataka kuhakikisha kuwa mtoto anajifunza kula na kumeza kwa usalama.

The goal is to guide childs eating skills as normal as possible and prevent the abnormal eating habits. We want to make sure that the child learns to eat and swallow safely.

2.Mkao mzuri wa kumlisha

2.Good feeding position

Mtoto mchanga

The Baby

*** Kukaa kwa mgongo kuwa nyuma kidogo**

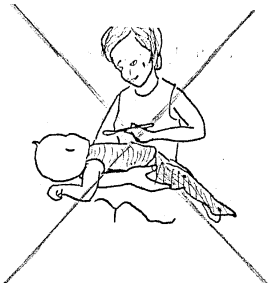
*** Mikono na miguu katikati na uso mbele**

*** Shingo ikiwa imenyooka na hakikisha kuwa kidevu kisiwe chini au juu**

- Half sitting
- Symmetrical - hands, feet and face forward
- Long neck – make sure that the chin is not bent down or up

NDIVYO
YES

SIVYO
NO



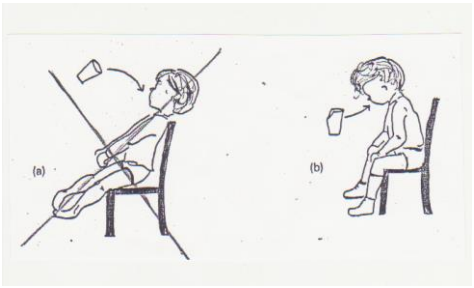
Mtoto zaidi ya umri wa mwaka mmoja

The older child

* **Kukaa vizuri, mwili mikono na miguu kuwa na urari wa katikati**
* **Kichwa kikinyooka na uso mbele**
* **Saidia shingo na kichwa kama inahitajika**
* **Miguu ikae kwa nyayo sakafuni au kwenye ubao wa kiti**
    - good symmetrical sitting position
    - head straight and forward
    - support the neck and head when needed
    - feet on the floor or on the surface

Mkao mzuri wa kumlisha

SIVYO/NO **NDIVYO** /YES



3.Vyombo
3.The utensils

Kijiko
Spoon

*** Kidogo, kifupi na chembamba**

*** Mpini mfupi wa kijiko ni mzuri kama mtoto anatumia kijiko mwenyewe**

- Small, shallow and narrow
- Thick handle may be helpful

Sahani
Plate

*** Pana kwa upange ili kusaidia kuchukua chakula kwa urahisi sahanini**

- Edges help the child to take the food from the plate

Kikombe
Mug

*** Kidogo**

*** Mdomo wa kikombe mkubwa kutosha kuzuia kichwa cha mtoto kuinama mno**

- Small enough
  the edge needs to be wide

4.Jinsi ya kumlisha?

4.How to feed?

*** Weka kijiko mdomoni mbele katikati juu ya ulimi**
*** Ngoja afunge mdomo mwenyewe na achukue chakula kutoka katika kijiko**
*** Kama inahitajika gandamiza ulimi kwa kijiko kigogo kumpa mtoto ishara ya chakula**
*** Toa kijiko bila kufagia chakula fizini**
*** Umsaidie mtoto kufunga na kufungua mdomo na kudhibiti mkao wa kidevu**

- Put the spoon into the mouth straight forward, on top of the tongue
- Wait the child to be active to close the mouth and take the food from the spoon
- If needed, press the tongue a little by the spoon, to give a child the message of the food
- Draw the spoon straight from the mouth, avoid sweeping the food to the gums
- Assist opening and the closure of the mouth and the chin, if needed

5.Udhibiti wa mdomo

5.Oral control

6.Ulaini wa chakula

6.Texture of the food

Ni muhimu kumlisha mtoto vyakula vigumu na vipande vidogo vidogo mapema, mtoto hawezi kujifunza kutafuna kwa kula vyakula laini.

It is important to give to a child solid food and pieces of food early enough, because smooth food doesn´t teach chewing.

Wakati wa umri wa miezi 6 anaponyonya pia.

*** Anza kumlisha vyakula vya ugumu mdogo kama vile uji, ndizi na viazi vilivyopondwa pondwa.**

When the baby is 6 month`s old

- Start with smooth semisolid food with quite a lot of fluid (uji).

Wakati wa Umri wa miezi 7-8

*** Anza kumpa vupande vidogo vidogo vya chakula kwa mfano, vipande vya ndizi na mkate.**

*** Weka vipande vya chakula mdomoni pembeni, upande wa kulia au kushoto mwa mdomo.**

*** Mpe kipande kimoja na subiri aanze kutafuna kwa fizi**

*** Badilisha ladha ya chakula pole pole.**

*** Kumfundisha kunywa kwa kikombe anza kwa kumpa vyakula vizito vya majimaji kama vile uji.**

When the baby is 7-8 months old

- give little soft pieces
- put the pieces left or right side of the mouth between the gums
- It is easier to learn to eat pieces first one by one.
- Add flavours gradually
- Learning to drink from the cup is easier to start by thicker fluids, like uji.

Mwache mtoto ajifunze kula mwenyewe kwa vidole na baadaye kwa kijiko wakati wa kimlisha.
Let the child practice eating with spoon and fingers.

KUMNYONYESHA MTOTO
BREAST FEEDING

Mkao mzuri (kushoto) na mkao mbaya (kulia) kwa mtoto wakati wa kumnyonyesha mtoto ananyonya vizuri (kushoto) mtoto nanyonya vibaya (kulia).

PICHA/ PICTURES: **WHO**

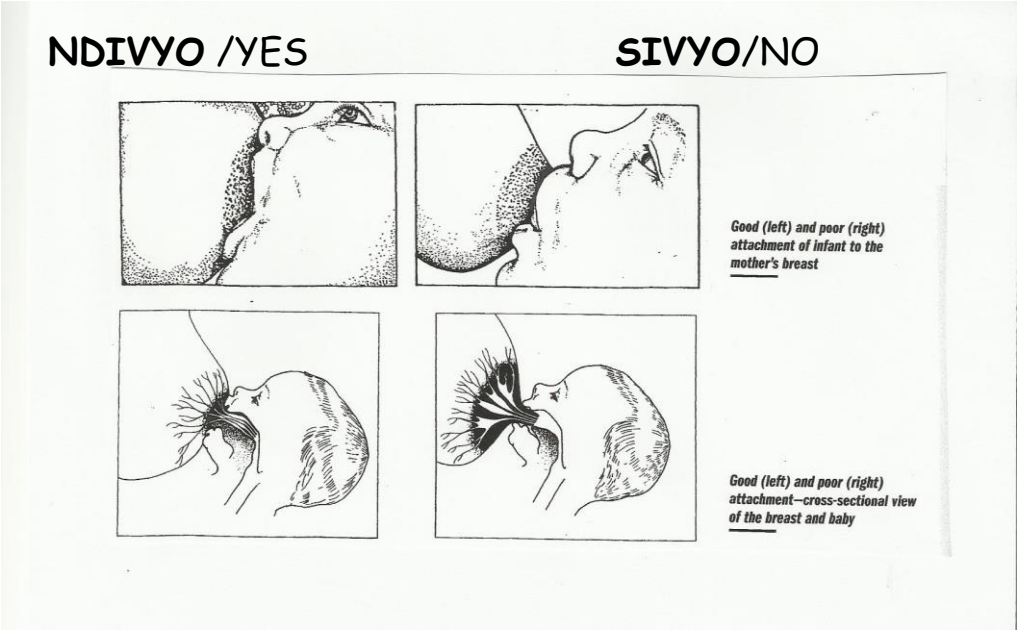
NDIVYO /YES **SIVYO**/NO

Good (left) and poor (right) positioning of infant for breastfeeding

Mgeuze mtoto kukuelekea wewe na muangalie mtoto.
Turn the baby towards you and look at him.

Ni muhimu kwamba chuchu zinaingia kwa kina mdomoni kiasi cha kutosha kwamba mtoto anaweza kunyonya vizuri.
It is importat, that the nipple is deep enough, that the child gets good suction.

NDIVYO /YES **SIVYO**/NO



Good (left) and poor (right) attachment of infant to the mother's breast

Good (left) and poor (right) attachment—cross-sectional view of the breast and baby

ILEMBULA LUTHERAN HOSPITAL 24-4-12
Dr Ulla Maija Ritanen
Dr Leena Pasanen

KUTUMIA MAZIWA YA NGOMBE KWA WATOTO WADOGO KABLA YA UMRI WA MWAKA MMOJA

(Inaweza kutumika badala ya Lactogen)

ADJUSTED COW MILK FORMULA

WATOTO WACHANGA KABLA YA UMRI WA WIKI MBILI:

maziwa ya ng´ombe	**mililita 500**	
maji	**mililita 500**	**CHEMSHA KUTENGENEZA LITA MOJA**
sukari	**gramu 50**	
mafuta ya alizeti	**mililita 10**	

WATOTO WACHANGA KATI YA UMRI WA WIKI MBILI-MIEZI SITA:

maziwa ya ng´ombe	**mililita 650**	
maji	**mililita 350**	**CHEMSHA KUTENGENEZA LITA MOJA**
sukari	**gramu 50**	
mafuta ya alizeti	**mililita 10**	

UMPE MTOTO MAZIWA YA NGOMBE KAMA HIVI:
mililita 35-40 kwa kilo ya uzito mara sita kwa siku

Kikoa: KCMC Pediatric Management Schedules 2009 (kifinyangawa)

ADJUSTED COW MILK FORMULA

(can be used instead of Lactogen)

INFANTS BELOW 2 WEEKS:

cow milk	500 ml	
water	500 ml	BOIL TO MAKE 1 LITRE
sugar	50 g	
cooking oil	10 ml	

INFANTS 2WEEKS -6 MONTHS:

cow milk	650 ml	
water	350 ml	BOIL TO MAKE 1 LITRE
sugar	50 g	
cooking oil	10 ml	

Additional vitamins and iron recommended:
cod liver oil 5 ml/day
3 mg Fe/kg/day
GIVE: 200 ml/kg/day divided in 6 doses (about 35-40 ml/kg/dose)

Source: KCMC Pediatric Management Schedules 2009 modified

CHAKULA CHA NYONGEZA
COMPLEMENTARY FEEDING

Chakula cha nyongeza ni hatua ya mpito kutoka kunyonya maziwa ya mama pekee hadi kutumia vyakula vingine vya familia. Ni kitu cha halisia kinachoanza kipindi cha umri wa miezi 6 mpaka miezi 18-24 na ni kipindi kigumu sana.

Complementary feeding is a transition from exclussive breastfeeding to family food. It is typically covers the period from 6 months to 18-24 months of age and is a very vulnerable period.

Ni kipindi ambacho utapiamlo unaanza kwa watoto wengi.
It is a period when malnutrion starts in many infants.

Chakula cha nyongeza kinatakiwa kiendane na muda ikimaanisha kwamba watoto wote wenye umri chini ya mwaka mmoja waanze kupata chakula cha nyongeza zaidi ya maziwa ya mama kuanzia umri wa miezi 6 na kuendelea. Chakula kinatakiwa kiwe cha kutosha ikimaanisha kinatakiwa kitolewe kwa wingi, kila mara kinapotakiwa, kisichobadilika na kutumia aina mbalimbali za vyakula vinavyokidhi mahitaji ya lishe ya mtoto anayekua wakati huo huo anaendelea kunyonya maziwa ya mama.

Complementary feeding should be timely meaning that all infants should start receiving foods in addition to breast milk from the age of 6months onwards. Foods should be adequete, meaning should be given in good amount, good freguency, consistency and using variety of foods to cover the nutritional needs of the growing child while maintaining breastfeeding.

Mapendekezo ya WHO juu ya chakula cha nyongeza.
WHO recommendations for complementary feeding.

WHO inapendekeza kwamba watoto wenye umri chini ya mwaka mmoja waanze kupata vyakula vya nyongeza katika umri wa miezi 6, mwanzoni mara 2-3 kwa siku kwa watoto wa umri wa miezi 6-8, kuongeza mara 3-4 kwa siku kwa watoto kwa watoto wa umri kati ya miezi 9-11 na wa miezi 12-24 wapate chakula bora cha nyongeza kama vitafunio (snacks) mara 1-2 kwa siku, kama unahitaji.
Lakini kwa watoto wenye ulemavu, tunashauri wapewe jumla ya milo angalau 5-6 kwa siku au mpaka milo 8 kwa siku kama inawezekana wakati huohuo endelea kumnyonyesha mtoto. Watoto wenye ulemavu kali havana guvu kula kiasi kikubwa mara kwa mara.

WHO recommends that infants start recieving complementary foods at the age of 6 months initially 2-3 times a day between 6-8 months, increasing 3-4 times daily between 9-11 months and 12-24 months with additional nutritious snacks offered 1-2 times per day, as desired.
But for these handicapped, we recommend to give them at least a sum of 5-6 meals per day or up to 8 meals per day if possible while maintaining breast feeding. Severely disabled may not to eat much per meal.

Ni vizuri kuanza na vyakula vilaini au vilaini sana na kama hakuna matatizo ya ulaji jaribu kumpa taratibu vyakula vigumu kidogo.

It is good to start with soft or semi liquid food and then if no feeding difficulties try practising solid food gradually.

CHAKULA BORA
BALANCE DIET

Chakula bora inamaanisha kwamba chakula cha nyongeza au lishe baada ya kumwachisha ziwa la mama na kina na mahitaji muhimu ya kabohaidreti iliyo na wanga inayoleta nguvu (vikambakamba) na kinashibisha tumbo, protini kujenga mwili hasa misuli, mafuta kuupa mwili joto (nguvu) na vitamini.

Nchini Tanzania kwa kawaida chakula kinachotumika katika familia nyingi kina kiasi kikubwa cha wanga (kabohaidreti) kama ugali, viazi, wali na mikate. Ni muhimu kuongeza vyakula vilivyo na protini kama vile maharagwe na karanga, nyama, samaki, mayai na maziwa (ama vitu vitokanavyo na maziwa). Maharagwe na karanga vinaweza kusagwa na kuchanganywa na unga wa lishe kwa ajili ya uji, pia maziwa yanaweza kuchanganywa kwenye uji au kupewa kama yalivyo baada ya kuchemshwa kama maziwa halisi (fresh milk) ya ng´ombe (ili kuzui Tb na brusela).

Mafuta ya kupikia yatokanayo na mimiea yana kiasi kikubwa cha nguvu ya joto na vitamin sana yanaweza kutumika pia kuchanganya na uji si tu kwa kupikia, Vitamini vipo vya aina mbili: zinavyochanganyika na maji (water solubable) ambazo zinatakiwa kupata kila siku na zinazochanganyika na mafuta (fat solubable) amabazo zinabaki mwilini kwa muda mrefu. Vitamini hupatikana zaidi kwenye matunda yote na mboga za majani. Dozi ya ziada ya vitamini A inatolewa kwenye kliniki za vituo vya afya ili kuzuia matatizo ya macho.

Wakati wa kuwaongoza na kutoa mafunzo kwa familia kuhusu chakula bora, ni muhimu sana kujadili kadiri ya kila mtu binafsi na kuheshimu usiri na hali yake kibinafsi kiuchumi juu ya kipi kinapatikana na kipi anauwezo nacho kukipata kulingana na gharama zake. Kwa mfano nyama ni bei ya juu ukilinganisha na maharagwe ni ya bei nafuu na karanga ni bei rahisi. Maziwa hayapatikani kila sehemu. Kwa upande wa matunda hupatikana kwa msimu wake.

Balanced diet means that complementary feeding or feeding after weaning should contain carbohydrates to give energy, fiber and fill the belly, proteins to build body especially muscles, oil (fat) to give energy and vitamins and vitamins.

In Tanzania family food is often very rich in carbohydrates like ugali, potatoes, rice and bread. It is necessary to add protein containing food like beans and groundnuts, meat, fish, eggs and milk products. Beans and groundnuts can be grinded to mix lishe flour for uji. Milk can be also mixed to uji or given as such boiled if fresh cow milk (to prevent tb and brucellosis).

Vegetable oil is rich in energy and vitamins, it can be used except for cooking also to be mixed with uji. Vitamins are too types: water solubable you need to give daily and fat solubable that stay in the body for longer. Vitamins are rich in all fruits and vegetables. Extra dose of vitamin A is given in health clinics to protect eyes.

While supervising family about balanced diet it is very important to discuss indiviadually respecting privacy what is avalilable and what family can afford. Like meat is very expensive but beans and groundnuts are cheaper. Milk is not available everywhere. Fruits have seasons.