

**UCHUNGUZI WA NEUROLOJIA KWA WATOTO WACHANGA KWA KUTUMIA  
DODOSO LA HAMMERSMITH (HINE) (v 27.07.24)**

Jina

Tarehe ya kuzaliwa

Wiki za ujauzito

Tarehe ya uchunguzi

Umri wa mtoto wa sasa /umri uliorekebisha

Mzingo wa kichwa

**MUHTASARI WA UCHUNGUZI**

**Jumla ya alama (Alama ya juu 78)**

**Namba ya visivyolingana**

**Alama za kitabia (sio sehemu mojawapo ya alama)**

**Utendajikazi wa neva za fuvu**

**(Alama ya juu 15)**

**Mkao**

**(Alama ya juu 18)**

**Mijongoe**

**(Alama ya juu 6)**

**Ugumu, kawaida, ulaini wa misuli**

**(Alama ya juu 24)**

**Uitikio wa matendo hisia**

**(Alama ya juu 15)**

**MAONI**

(Wakati wote wa uchunguzi, kama majibu hayajitoshelezi kiasi cha kuweka alama 1, weka alama 2)



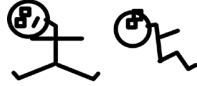






**UCHUNGUZI WA NEUROLOJIA**

**UCHUNGUZI WA UTENDAJI KAZI WA NEVA FUVU**

|  | alama 3  | 2 | alama 1   | alama 0   | alama | isiolingana/<br>maoni |
|--|--|---|---|---|-------|-----------------------|
| <b>Muonekano wa uso</b><br>(akiwa ametulia, akilia au akichokozwa )        | Anatabasamu au anaitikia kichocheo kwa kufunga macho na kukunja uso. |   | Anafunga macho bila kukaza muonekano mbaya wa uso.                | Haitikii kichocheo                                  |       |                       |
| <b>Muitikio wa macho</b>   | Muitikio sawa wa macho   |   | Uja kwa vipindi Muitikio usio sawa wa macho unaobadilika badilika | Unaoendelea Muitikio usio sawa wa macho unaoendelea |       |                       |
| <b>Uwezo wa uoni</b><br>pima uwezo wa uoni kwa kufuata kitu cheupe/cheusi. | Anaweza kufuata kitu hadi mwisho kabisa                              |   | Anaweza kufuata kitu bila kufika mwisho                           | Hafuati kabisa                                      |       |                       |

|  |                                   |  |                                  |                                |  |  |
|--|-----------------------------------|--|----------------------------------|--------------------------------|--|--|
| <b>Uwezo wa kusikia</b><br>Pima kwa kupiga kitu chenye sauti ndogo masikioni   | Anaitikia pande zote.             |  | Muitikio wa shaka na usiolingana | Hamna muitikio                 |  |  |
| <b>Kunyonya/kumeza</b><br>Angalia mtoto akiwa ananyonya maziwa ya mama au chupa, kama ni mkubwa uliza kumlisha chakula, kukohoa au kutoa udenda kwa wingi. | Anaweza kunyonya na kumeza vizuri |  | Hanyonyi/hamezi vizuri           | Hawezi kunyonya, kumeza kabisa |  |  |

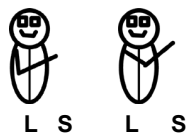

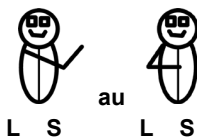



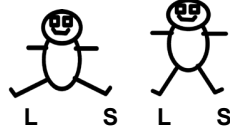
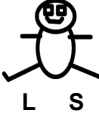


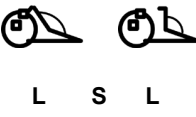

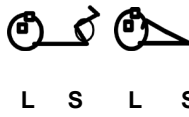
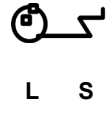
## UCHUNGUZI WA MKAO (Angalia kama kuna kutokulingana)



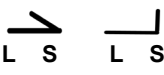







|   | Alama 3  | Alama 2                                 | Alama 1   | Alama 0   | Alama | Isiolingana /Maoni |
|---|--|---|---|---|-------|--------------------|
| <b>Kichwa</b><br>akiwa amekaa (inabidi kumpa sapoti)                          | <br>Kiko wima; na katikati  |   | <br>Kiko kidogo upande, nyuma au mbele   | <br>Kipo mbele, upande au nyuma sana   |       |                    |
| <b>Kiwiliwili</b><br>akiwa amekaa (mpe sapoti kwenye nyonga kama itahitajika) | <br>Kipo wima   |   | <br>Kimepinda kidogo mgongoni au upande  | <br>Kimepinda sana nyuma au upande  |       |                    |
| <b>Mikono</b><br>akiwa ametulia   | Ananyoosha kidogo au anapindisha.  |   | Kidogo Anazungusha mkono ndani na nje kidogo  | Sana Anazungusha mkono ndani na nje sana  |       |                    |
| <b>Kiganja</b>  | Anafungua kiganja  |   | Uja kwa vipindi Anafungua na kufunga kiganja na kuacha  | Bila Kuacha Anafungua na kufunga kidole gumba bila kuacha   |       |                    |
| <b>Miguu</b><br>akiwa amekaa<br><br>Akilala chali na kusimama                 | Anaweza kukaa na mgongo wima na kunyoosha miguu au kukunja kidogo (anaka muda mrefu)<br><br>Miguu inakuwa kawaida, imenyooka au kujikunja kidogo. | Miguu imezungu shwa ndani au nje kidogo | Anaka wima lakini akikuunja goti nyuzi 15-20 °<br><br>Anazungusha miguu ndani au nje kwenye nyonga | Hawezi kukaa wima mpaka magoti yakunjwe (hawezi kunyoosha miguu kwa muda mrefu)<br><br>Miguu inazunguka ndani au nje. ananyoosha au kukunjatu, mkakamao wa nyonga au magoti. |       |                    |
| <b>Kifundo</b><br>akiwa chali na akisimama                                    | Akiwa katika ukawaida Vidole vimenyooka, vipo kati ya kujikunja na kunyooka  |   | Mzunguko wa ndani au nje kidogo<br><br>Kusimamia vidole au ncha za vidole mara chache   | Mzunguko zaidi wa nje na ndani kwenye kifundo<br><br>Kusimamia vidole au ncha za vidole wakati wote   |       |                    |

## UCHUNGUZI WA MIJONGEO













|   | Alama 3  | Alama 2 | Alama 1                              | Alama 0   | Alama | Isiilinganay / maoni |
|---|--|---------|--------------------------------------|---|-------|----------------------|
| <b>Kiasi</b><br>Muangalie mtoto akiwa amelala chali                     | kawaida  |         | Imezidi au polepole sana             | Kidogo au hakuna  |       |                      |
| <b>Ubora</b><br>Angalia mijongeo ya hiari ya misuli wakati wa uchunguzi | Inayokuja kwa uhuru kwa kubadiliashana na laini kusogea, |         | Mshtuko kidogo<br>Kutetemeka kidogo. | <ul style="list-style-type: none"> <li>imejifunga kwa pamoja</li> <li>kukakamaa kwa misuli ya kunyooka</li> <li>mijongeo isiyotulia</li> <li>kutembea na mijongeo isio na utaratibu</li> <li>kutetemeka sana</li> <li>misuli kukakamaa</li> <li>mijongeo isio na utaratibu</li> </ul> |       |                      |

## UCHUNGUZI WA UGUMU, KAWAIDA NA ULAINI WA MISULI








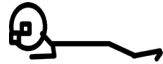
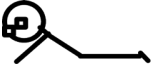

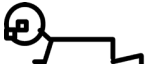
|   | Alama 3   | Alama 2   | Alama 1  | Alama 0   | Ala ma | Isiilingan a/maoni |
|---|---|---|--|---|--------|--------------------|
| <b>Ishara ya kuzunguka shingo</b><br>Chukua mkono wa mtoto na mvute mkono kupitia kifua mpaka upate ukinzani. kumbuka mkao wa kiwiko na katikati ya mwili                         |                                   |   |                      |                           |        |                    |
| <b>Mnyanyue bega juu.</b><br>Nyanyua mkono juu ya kichwa cha mtoto angalia ukinzani kwenye bega na kiwiko   | Anaweka ukinzani unaozuilika<br> | Ngumu kuzuia ukinzani<br>L S  | Hamna ukinzani<br> | Ukinzani usiozuilika<br> |        |                    |
| <b>Zungusha kiwiko chali na kifudifudi.</b><br>Sehemu ya juu ya mkono itulie bila kuzunguka, angalia ukinzani.  | Zungusha kiwiko chali na kifudifudi hamna ukinzani.   |   | Ukinzani unaozuilika   | Huwezi kuweka mkono chali na kifudifudi kunukunzani mkubwa.   |        |                    |
| <b>Misuli inayopeleka nyonga ndani.</b><br>Nyoosha miguu yote ya mtoto peleka nje hadi mwisho angalia pembe itakayotengenezwa katikati  | Nyuzi: 150-80°<br>               | 150-160°<br> | >170°<br>          | <80°<br>                 |        |                    |
| <b>Pembe nyuma ya goti</b><br>Mlaze mtoto chali kitandanikunja miguu yote hadi tumboni, alafu nyoosha magoti mpaka upate ukinzani. Kumbuka pembe itakayotengenezwa nyuma ya goti. | Nyuzi: 150°-100°<br>             | 150-160°<br> | ~90° au > 170°<br> | <80°<br>                 |        |                    |

|  |   |   |   |  |  |  |
|--|---|---|---|--|--|--|
| <b>Kifundo kwenda juu</b><br>magoti yakiwa yamenyooka<br>peleka kifundo juu, angalia<br>pembe kati ya kifundo na<br>unyayo.  | Nyuzi: 30°-85°<br> | 20-30°<br> | <20° au 90°<br> | > 90°<br> |  |  |
| <b>Mvute akae</b><br>mvute mtoto kwenye kiganja<br>hadi akae.<br>(sapoti kichwa ikiwezekana)                                 |                    |   |                 |           |  |  |
| <b>Mshike mtoto sawa<br/>kwenye kiwiliwili akiwa<br/>kifudifudi.</b><br>angalia mkaao wa mgongo<br>mikono, miguu na kichwa.. |                    |   |                 |           |  |  |

## UITIKIO WA MATENDO YASIO HIYARI

|  | Alama 3  | Alama 2  | Alama 1  | Alama 0  | Ala<br>ma | isiolinga<br>nana/m<br>aoni |
|--|--|--|--|--|-----------|-----------------------------|
| <b>Kujikinga mkono</b><br>Mvute mtoto kwa mkono mmoja<br>kutoka chali, (nyonga ya<br>upande mwingine iwe<br>thabiti) angalia uitikio wa mkono<br>wa upande mwingine.   | <br>Ananyoosha mkono<br>na kiganja<br>L S |  | <br>Anakunja mkono<br>kidogo<br>L S      | <br>Anakunja mkono hadi<br>mwisho<br>L S                                |           |                             |
| <b>Kumuweka wima</b><br>mshike mtoto chini ya kwapa,<br>hakikisha miguu haishiki kitu<br>chochote, Tekenya unyayo<br>kuchochea kupiga mateke.  | <br>Anapiga mateke kwa<br>kulingana      |  | <br>Anapiga mateke na<br>mguu mmoja tu. | <br>Hapigi mateke kabisa<br>hata akichochea au<br>anapishanisha miguu. |           |                             |
| <b>Kumwinamisha upande</b><br>(Upande unaopimwa uwe juu).<br>Mshike mtoto wima karibu na<br>nyonga na umwinamisha<br>upande kwenda ulalo. Angalia<br>kiwiliwili, uti wa mgongo ,<br>miguu, mikono na kichwa. | <br>L S                                 | <br>L S | <br>L S                                | <br>L S   |           |                             |
| <b>Mshike mtoto kifudifudi<br/>na umwinamisha<br/>haraka kwenda mbele.</b><br>Angalia usawa uliolingana wa<br>mikono   | <br>(Baada ya miezi 6)                  | Majibu yasiyo<br>kamili  | <br>(Baada ya miezi 6)                 | Kabla ya miezi 6 umri<br>ulirekebisha, weka<br>alama 0 kwa watoto<br>wote  |           |                             |
| <b>Tendo hisia la kamba<br/>inayounganisha msuli<br/>na mfupa</b><br>Mtoto awe ametulia,<br>amekaa au kulala- tumia<br>kifaa cha kupimia.  | Rahisi kuiamsha<br>kiwiko, goti, kifundo   | Inaenda haraka<br>kidogo<br>kiwiko, goti,<br>kifundo                                       | Inaenda haraka<br>kiwiko, goti, kifundo  | Inaenda haraka sana<br>au hamna kabisa<br>kiwiko, goti, kifundo  |           |                             |

## SEHEMU YA 2 HATUA MUHIMU ZA UKUAJI (Hamna alama; Kumbuka isiolingana)

| Kuthibiti kichwa                                       | Hawezi kuthibiti kichwa<br><br>kawaida mpaka miezi 3 | Anatingisha kichwa<br><br>kawaida mpaka miezi 4   | Kinakuwa wima muda wote<br><br>kawaida kuanzi miezi 5   |   |   | Tafadhali zingatia umri ambao hatua muhimu imefikiwa. |
|--|--|---|---|---|---|---|
| <b>Kukaa</b>   | Hawezi kukaa   | Anakaa na sapatu kwenye nyonga<br><br>kawaida akiwa na miezi 4 | Anakaa na anajisapatu chini na mikono<br><br>Kawaida kwa miezi 6   | Anaweza kukaa imara<br><br>kawaida kuanzia miezi 7-8 | Geuka (zunguka)<br><br>kawaida kwa miezi 9                   | Angalia na:<br><br>Ripoti (umri):                     |
| Kushika vitu kwa hiyari .<br><b>angalia upande</b>     | Hawezi kushika kitu                                  | Anatumia kiganja chote  | Anatumia kidole cha pete na gumba   | Anatumia kidole gumba na kidole cha kwanza  |   | Angalia na<br><br>Ripoti (umri):                      |
| Uwezo wa kurusha mateke akiwa chali                    | Hawezi kurusha mateke                                | Anaweza kurusha mateke lakini hawezi kunyanyua miguu juu  | Ananyanyua juu<br><br>kawaida miezi 3                              | Anashika miguu<br><br>kawaida miezi 4-5              | Anashika vidole<br><br>kawaida miezi 5-6                     | Angalia na :<br><br>Ripoti (umri):                    |
| <b>Anageuka - angalia pande zipi</b>                   | Hageuki  | Anageuka kwenda upande<br><br>Kawaida miezi 4   | kifudufudi kwenda chali<br><br>kawaida kwa miezi 6  | Chali kwenda kifudufudi<br><br>kawaida kwa miezi 6  |   | Angalia na:<br><br>Ripoti (umri):                     |
| <b>Kutambaa - angalia kama anacheche mea kwa chini</b> | Hawezi kuinua kichwa                                 | Kwa kiwiko<br><br>kawaida miezi 3                            | Anaweza kutambaa kwa kunyoosha mikono<br><br>kawaida kwa miezi 4 | Anatambaa kwa tumbo<br><br>kawaida kwa miezi 8     | Anatambaa kwa mikono na magoti<br><br>kawaida kwa miezi 10 | Angalia na:<br><br>Ripoti (umri):                     |
| <b>Kusimama</b>  | Hawezi kujisapot uzitoi                              | Anasapatu uzito<br><br>kawaida kwa miezi 4  | Anasimama na sapatu<br>kawaida kwa miezi 7.   | Anasimama kwa kujitegemea<br><br>kawaida kwa miezi 12   |   | Angalia na:<br><br>Ripoti(umri):                      |
| <b>Kutembea</b>  |  | Anarukaruka<br><br>kawaida kwa miezi 6  | Anashika vitu (anatembea kwa kushika vitu) kawaida kwa miezi 12.  | Anatembea huru<br><br>kawaida kwa miezi 15  |   | Angalia na :<br><br>Ripoti (umri):                    |

### SEHEMU YA 3 TABIA (haina alama)

|                        | 1                          | 2                            | 3                       | 4                        | 5                          | 6           | Maoni |
|------------------------|----------------------------|------------------------------|-------------------------|--------------------------|----------------------------|-------------|-------|
| <b>Hali ya ufahamu</b> | Hasisimki                  | Kusinzia kupita kiasi        | Kusinzia                | Anaamka ila hana umakini | Hana umakini               | Ana umakini |       |
| <b>Hali ya kihisia</b> | Ana hasira, habembelez eki | Ana hasira, anabembeleze ka. | Anakasirika ukimkaribia | Hana furaha wala furaha  | Anafura ha na anatab asamu |             |       |
| <b>Hali ya kijamii</b> | Anajitenga, kujiondoa      | Anahofu                      | Anakubali kukaribiwa    | Anakuwa rafiki           |                            |             |       |

Translation by **Dr. Fernanda Cordeiro da Silva** (Acts of Life Tanzania), **Paulina Samwel Kimweri** (Morogoro Regional Referral Hospital), **Dr. Mwanakulya E. Simfukwe** (Nantalonga General Medical Clinic), and **Dr. Geoffrey Olieng'o** (Kenya Medical Research Institute).

***This is the official form for use with the Hammersmith Infant Neurological Examination.***

***Its content and scoring system are not to be changed.***

***Main reference Haataja L et al J Peds 1999;135:153-61***

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