

Subtitle Format Kinyarwanda

Chapter 1 Introduction

Uburyo buhamye bw'ibanze by'agahinja kumuntu habanza utuburungu tugenda dukura tugera kuri trillion-100 ni igitangaza kidakuka cy'ibinyabuzima byose bimera.

Menya ko abashakashatsi bazi uko bigenda mu mubiri w'umubyeyi uko bihinduka mu gihe cyo gutwita- akenshi igihe kirekire mbere yo kubyara.

Amajyambere abanziriza ibyara birumvikana ntashiti ko ari igihe cyo kwitegura mugihe umubiri w'umuntu ugerwaho n'imihindagurike myinshi, n'imikorere ikeneye ubuhanga, kubera imibereho nyuma yo kubyara.

Chapter 2 Terminology

Inda, mu buryo busanzwe iramba hafi ibyumweru 38 nkuko byabazwe kuva igihe cyo gusama inda cyangwa igihe cyo gusama, kugeza igihe cyo kubyara.

Mugihe cy'ibyumweru 8 bya mbere nyuma yo gusama, imihindagurike y'umubiri nicyo cyitwa intangiriro, aribyo bimenyeshya ko hari "bikura munda" Iki gihe kimenywa nkigire kibanza, kikaba kigaragaza ububumbe bw'ibigize ahanini umubiri.

Guhera byuzura ibyumweru 8 kugeza igihe inda ari imvutsi, "inzira iganisha kuba umuntu yitwa isoro" aricyo cyitwa "umwana utaravuka." Icyo gihe, cyitwa igihe cyo gusama umubiri urakura rwose n'ingingo zawo zigatangira gukura.

Ibihe byose by'intangiro kugeza ku igi muri iyi gahunda bijyana ni igihe cyo gusama.

The Embryonic Period (The First 8 Weeks)

Embryonic Development: The First 4 Weeks

Chapter 3 Fertilization

Ibinyabuzima biragaragara, "Ikiremwa muntu gitangira im ibereho yawo magihe cyo gusama." ni mugihe umugore n'umugabo iyo bahuje intanga 23 za buri wese mugihe cyo kuryamana igehe intanga zihura.

Intanga zibyara z'umugore muri rusange zitwa "igi" Ariko uhamba rikwiriye Na'masohoro.

Nkuko intanga zibyara z'umugabo muri rusange zitwa "amasohoro" ariko ijambo rikoreshwa ni intanga.

Imbuta z'umugore iyo zisohotse nirwo urutonde rwitwa amagi, igi n'amasohoro bihuriye muri umwe mu miheha y'inyababyeyi, aribyo akenshi bishyira imiheha ishashe.

Imiheha y'inyababyeyi ijyana intanga z'umugore mu kiziba cy'inda cyangwa mu gitereko cyayo.

Akaburungu kamwe iyo kagitangira niko kiswe isoro, aribyo bisobanura "bibiri byafatanye hamwe."

Chapter 4 DNA, Cell Division, and Early Pregnancy Factor (EPF)

DNA

Isoro z'uturondorondo 46 ihwanye ni intera imwe rukumbi ya mbere nshyashya yuzuye y'umuntu ku giti cye muburyo buziguye. Iryo teganya mirambi Ryi carya rigwatiriye kuburyo rizengurutse utubumbe twitwa DNA. Tuba dufite amabwiriza y'amajyambere y'umubiri wose.

Utuburungu twa DNA tuba tumeze nk'urwego rujagajega tugaragara nk'uruboho ruboshye kabiri. Intera z'urwego zibazifite Utuburungu tubiri tubiri cyangwa dushingiye kucyo bise ishingiro, ibifite isukari, imboga, n'inyama.

Ibifite isukari bibiri byonyine biba mumaraso, n'ibikomoka kumboga no ku nyama. Buri mubiri w'umuntu ugizwe n'utuburungu tugera kuri miriyardi 3 tukagenda ari tubiri tubiri.

Akaburungu kamwe gusa ka DNA kaba gafite inkuru zitabarika Kuburyo izo nkuru iyo ziza Kwandikwa mu magambo, n'iyi haza gukoreshwa inyuguti imwe gusa ibanza ya buri jambo hakenerwa amapaji arenze miriyoni 1.5, y'ibyanditswe

Iyo gapimwe uko kangana akaburungu kamwe ka DNA k'umuntu gapima santimetero 100 cyangwa metero 1.

Iyo twakuraho ibyizingiye byose kuri DNA mu tuburungu trillion 100 tw'umuntu mukuru, twakwira ahantu hareshya n'ibirometero miriyaridi 63. Ubwo burebure buhwanye no kuva kw'isi kujya ku zuba no kugaruka inshuro 340.

Cell Division

Ni hafi amasaha 24 kugeza kuri 30 nyuma yo gutera intanga, isoro ryigabanyamo ubwa mbere. Muri urwo rutonde rw'urujya n'uruza, akaburungu kamwe kicamo kabiri, kabiri kichamo ishuro 4 nuko...

Early Pregnancy Factor (EPF)

Nyuma y'amasaha 24 kugeza kuri 48 intanga zitewe, ubuhanga bushobora kwemeza ko umugore atwite ibyo bitwa "ikimenyesho cyo gutwita" mu maraso y'umubyeyi.

Chapter 5 Early Stages (Morula and Blastocyst) and Stem Cells

Nyuma y'iminsi 3 kugeza kuri 4 nyuma yo gutera intanga, utubumbe twigabanyijemo hagaragara akabumbe gasa n'uruziga ako kabumbe rero niko kitwa morula.

Hagati y'iminsi 4 n'5, haboneka akobo mutubumbe tume nk'umupira iyo sura igitangira niyo yitwa isoro.

Utuburungu imbere mu isoro twitwa akabumbe k'imbere kanini niko gatuma umutwe, umubiri, n'izindi ngingo bikura ni ngombwa mu mibereho y'umuntu.

Utuburungu imbere mu kabumbe kanini twitwa utubumbe fatizo kubera ko dushobora kamwe ukwako gashobora kuvamo utubumbe tugeze kuri 200 turimo umubiri w'umuntu.

Chapter 6 1 to 1½ Weeks: Implantation and Human Chorionic Gonadotropin (hCG)

Nyuma yo kugenda mu miheha y'inyababyeyi akabumbe kishyira ubwako mu rukuta rw'imbere rw'ikiziba cy'inda y'umubyeyi. Urwo rutonde, rwitwa gushimangira, rutangira iminsi 6 rukarangira hagati y'iminsi 10 na 12 intanga zatewe.

Bitewe n'imikurire y'utuburungu tw'ibanze hatangira ibimenyetso byitwa chorionic, gonadotropin, cyangwa hCG. Ayo niyo mazina y'ibiboneka iyo basuzumye utwite.

HCG nibyo biranga umubyeyi kutongera kujya mu mihango isanzwe ya buri kwezi bituma inda ikura.

Chapter 7 The Placenta and Umbilical Cord

Ishimangira ribaye, utubumbe turi iruhande rwa blastocyst duha ingobyi kwaguka, ariyo iba iri hagati y'ibiri munda n'umwana.

Ingobyi iha umwana umwuka ahumeka, n'ibimutunga, ibyubaka umubiri, n'imiti kugira ngo umubiri ukure; imukuriraho imyanda yose; irinda umwana amaraso ye kutivanga n'amaraso y'insobane n'ay'isoro.

Ingobyi itanga kandi ibimenyetso ikagira kandi ibipimo by'ubushyuhe n'ubukonje burutaho gato ubw'umubyeyi we.

Ingobyi ikorana n'imikurire y'ikiremwa binyuze mu mitsi y'umukondo.

Ubuzima bw'umubyeyi nibwo buha imbaraga ingobyi zirwanya indwara duhura nazo mu bitaro by'iki gihe.

Chapter 8 Nutrition and Protection

Mugihe cy'icyumweru 1, utuburungu tw'imbere mu kabumbe kanini dukora bugenzi bwatwo bubiri twiswe imirongo y'imbere no hasi n'igaragara hanze.

Hypoblast niyo ituma umuhondo w'igi ukura ariwo ufite uburyo umubyeyi agaburiramo aho umwana atangirira.

Utuburungu tuva kuri epiblast dukora icyitwa amnion (urukoko rukomeye) arimo isoro na kera hazaza igi rizakura kugeza kubyara.

Chapter 9 2 to 4 Weeks: Germ Layers and Organ Formation

Mugihe hafi ibyumweru 2 1/2 epiblast iba yarabaye impu 3 zidasanzwe, cyangwa nk'imbuto ifite uruhumbu, yiswe uruhu rw'inyuma, uruhu rw'imbere, n'uruho rw'imbere cyane.

Uruhu rw'inyuma nirwo rutuma byose bikura harimo n'ubwonko, urura rw'izinze, ubuzima, uruhu, inzara, n'umusatsi.

Uruhu rw'imbere nirwo rutanga uburyo bwo guhumeka n'uburyo bwo gustya ibiryo, nirwo rutuma ibihimba byinshi by'umubiri nk'umwijima ndetse n'urwagashya bikura.

Uruhu rw'imbere cyane rugize umutima, impyiko, amagufwa, ingingo inyama z'umubiri, utuburungu tw'amaraso n'ibindi bihimba by'umubiri.

Mugihe cy'ibyumweru 3 ubwonko buba bugabanyijemo ibice bitatu by'ibanze byitwa ubwonko bubanza, ubwonko bwo hagati, n'ubwonko bw'inyuma.

Iterambere ry'uburyo bwo guhumeka no gustya ibiryo riba naryo ryatangiyeye.

Nkuko utuburungu twa mbere tw'amaraso tugaragara mu muhondo w'igi, imitsi y'amaraso ikora isoro n'imiheha y'umutima ikagarara.

Ni nkako kanya, umutima ukura vuba wishyira mu gitereko wonyine nkaho uri mu byumba bitandukanye ugatangira gukura.

Umutima utangira gutera hashize ibyumweru 3 n'umunsi 1 nyuma yo gutera intanga.

Habanza gukora uburyo umubiri ugaburirwa, cyangwa uburyo rusange buhuza ibigize umubiri, kugira ngo umubiri ubashe gukora.

Chapter 10 3 to 4 Weeks: The Folding of the Embryo

Hagati y'ibyumweru 3 na 4, umubiri utanga imigambi yawo nk'ubwonko, urura rw'izinze, n'umutima kimwe n'igi bigaragara kuburyo bworoshye hamwe n'umuhondo w'igi.

Gukura vuba bitera igi kugenda riyoyoka. Urwo rutonde rujyana n'umuhondo w'igi mu murongo umwe n'uburyo umubiri ustya ibiryo ukanakora igituza n'imyobo y'inda mu rwego rw'imikurire y'umuntu.

Embryonic Development: 4 to 6 Weeks

Chapter 11 4 Weeks: Amniotic Fluid

Mugihe cy'ibyumweru 4 haboneka amavuta asukuye akikije isoro mu mavuta yuzuye igi. Ayo mavuta atagira umwanda, yitwa amavuta y'urukoko, arinda isoro kudakomereka.

Chapter 12 The Heart in Action

Umutima muzima utera inshuro 113 ku munota.

Reba uko umutima uhindura ibara uko amaraso yinjira agasoho mu byumba byawo uko uteye.

Umutima uzatera hafi inshuro miriyoni 54 mbere yo kuvuka n'inshuro zirenze miriyardi 3.2 mugihe kirenze uburambe bw'imyaka 80.

Chapter 13 Brain Growth

Gukura vuba k'ubwonko bigaragazwa n'umuntu uko ahinduka bitewe n'ubwonko bw'imbere, ubwonko bwo hagati, n'ubwonko bw'inyuma.

Chapter 14 Limb Buds

Igihima cyo hejuru n'icyo hasi bitangira gukura nkuko ibyo bihimba bigaragara mugihe cy'ibyumweru 4.

Muri icyo gihe uruhu ruba rubonerana kubera ko aba'rakabumbe kamwe kananutse.

Uko uruhu runanuka rero, ruzagenda ruta kwa kubonerana, aribyo bisobanura ko dushobora gusa kubona ibihimba by'imbere uko bigenda bikura mugihe cy'ukundi kwezi.

Chapter 15 5 Weeks: Cerebral Hemispheres

Hagati y'ibyumweru 4 na 5, ubwonko bukomeza gukura vuba kandi bukigabanyamo imirwi 5 itandukanye.

Umutwe uba ufite ibihwanye na $1/3$ cy'isoro ryose.

Ibitereko by'ubwonko bigaragara, buhoro-buhoro. uko bigenda biba binini.

Imikorere ikagenzurwa n'ibitereko by'ubwonko harimo, ibitekerezo, kwiga, kwibuka, kuvuga, inzozi, kumva, kwinyagambura kubushake, no gukemura ibibazo.

Chapter 16 Major Airways

Mubuhumekero, iburyo n'ibumoso shingiro ry'ibihaha hari kandi hashobora kwifatanya n'umuyoboro, cyangwa umuheha w'umuyaga, hamwe n'ibihaha.

Chapter 17 Liver and Kidneys

Reba uburyo umwijima munini wuzuye inda uteganye n'umutima utera.

Impyiko zihoraho zigaragara mugihe cy'ibyumweru 5.

Chapter 18 Yolk Sac and Germ Cells

Umuhondo w'igi uba ufite ibinyabuzima kamere byitwa imbuto. Mugihe cy'ibyumweru 5 izo mbuto zirimuka kugira ngo zivemo ibihimba by'umubiri bigategana n'impyiko.

Chapter 19 Hand Plates and Cartilage

Nanone mugihe cy'ibyumweru 5, isoro rikuza ibiganza imbavu zitangira kubaho mugihe cy'ibyumweru 5 ½.

Hano turabona ikiganza cy'ibumoso Naho inkokora iboneka nyuma y'ibyumweru 5 n'iminsi 6.

Embryonic Development: 6 to 8 Weeks

Chapter 20 6 Weeks: Motion and Sensation

Mugihe cy'ibyumweru 6 ibitereko by'ubwonko bikura vuba kuburyo budahuje kurusha ibindi bice by'ubwonko.

Isoro kubwaryo Ritangira gukora no kwinyagambura ritabwirijwe. Kwigira gutyo ni ngombwa kugira ngo imitsi igize umubiri ikure ibi biswanzwe.

Gukora mugace k'umunwa bituma isoro rikuraho umutwe waryo.

Chapter 21 The External Ear and Blood Cell Formation

Ugutwi gusanzwe gutangira kwishushanya.

Mugihe cy'ibyumweru 6, amaraso atangira kubaho mu mwijima urukoko rw'amavuta rutangira kubaho. aho utuburungu twamaraso yera dutangira kubaho. ni igice cy'ingenzi murwego rwo guha ingabo umubiri.

Chapter 22 The Diaphragm and Intestines

Ubuhumekero, inyama y'ibanze ikora muguhumeka, ibaho ahanini mugihe cy'ibyumweru 6.

Amwe mu mara agaragara by'agateganyo mu mukondo. Urwo rutonde rusanzwe, nirwo rwitwa urutirigongo, rutegurira ibindi bihimba bigikura munda.

Chapter 23 Hand Plates and Brainwaves

Mu byumweru 6 ibiganza biboneka muburyo butaziguye.

Umuhengeri w'ubwonko uba waragaraye mugihe cy'ibyumweru 6 n'iminsi 2.

Chapter 24 Nipple Formation

Utubumbankore n'izindi ngingo zigaragara igihe gito mbere yo kujya aho bugomba kuba imbere y'igituza.

Chapter 25 Limb Development

Mugihe cy'ibyumweru 6 ½, inkokora ziba zigaragara, intoki zitangira gutandukana, ukwinyagambura kw'amaboko gushobora kuboneka.

Amagufwa kubaho, aricyo bita mboneza magufwa, bitangirana n'ibitugu, cyangwa akarondo k'amagufwa, n'amagufwa yohejuru n'ayo hasi y'umusaya.

Chapter 26 7 Weeks: Hiccups and Startle Response

Isepfu iba yaragaragaye mugihe cy'ibyumweru 7.

Amaguru uko yinyagambura bishobora kuboneka kimwe n'uburyo yikanga.

Chapter 27 The Maturing Heart

Ibyumba 4 by'umutima biba ahanini byuzuye. Mukigereranyo, umutima uba utera inshuro 167 ku munota.

Imikorere y'amashanyarazi y'umutima ibaho mubyumweru 7 ½ werekana umuhengeri nk'uwumuntu mukuru.

Chapter 28 Ovaries and Eyes

Mugitsina gore amagi aboneka mugihe cy'ibyumweru 7.

Mugihe cy'ibyumweru 7 ½, amabara y'imboni z'amaso agaragara kuburyo bworoshye ndetse n'ibiziga byayo kuko bitangira igihe cyo gukura nko kuvumbuka.

Chapter 29 Fingers and Toes

Intoki ziba zitandukanye n'amano aba afataniye kuntangiro.

Amaboko ashobora noneho kujya hamwe, nkuko ibirengye bimera.

Amavi agaragara afatanye.

The 8-Week Embryo

Chapter 30 8 Weeks: Brain Development

Mubyumweru 8 ubwonko buba bwarakuze rwose buba bungana na kimwe cya kabiri cy'ibiro byose by'uruhinja.

Gukura gukomeza kwihuta kuburyo budasanzwe.

Chapter 31 Right- and Left-Handedness

Mugihe cy'ibyumweru 8, 75% by'impinja ahanini zerekana iburyo bwazo. Igihimba gisigaye kigabanyamo imigabane ingana hagati y'ibumoso n'ahandi. Ibimenyesho byogukoresha Indyo cyangwa imoso.

Chapter 32 Rolling Over

Abaganga bavura abana nibo babifitemo "ubuzobere" nkuko bigaragara mubyumweru 10 kugeza ku 20 nyuma yo kuvuka. Ariko nanone, urwo ruhererekane ruhambaye rwerekana bigikubita aho uburemere buke buri bwa ya mavuta arinda igi gukomereka. Keretse gusa habuze imbaraga zikenewe kugira ngo hanashwe ibogama ry'ingufu ziturutse kuruhande ubundi ikiziba cy'inda kirinda umwana impanuka.

Uruhinja rutangira gukubagana muri iki gihe.

Ashobora gukubagana buhoro cyangwa cyane, rimwe cyangwa kenshi, kubushake cyangwa hari impamvu.

Umutwe kuwubona ahandi, ijosi ari uko, n'akaboko kakagaragara ibyo bikunze kubaho.

Gukora kugahinja bituma gakinisha imisaya, kakerekena gupfumbata cyane, no kwereka ino.

Chapter 33 Eyelid Fusion

Hagati y'ibyumweru 7 n'8, ibitsike by'amaso bikura bwangu hejuru y'amaso bikajya no kwegerana.

Chapter 34 "Breathing" Motion and Urination

Nubwo nta muyaga uba uri mu kiziba cy'inda, uruhinja rwerekana rimwe na rimwe uburyo bwo guhumeka mubyumweru 8.

Muri iki gihe, impyiko zisohora inkari zikajya mu wa mufuka w'amavuta.

Mw'isoro rizavukamo igitsina gabo, haboneka ibimenyetso byuko hazavuka umuhungu.

Chapter 35 The Limbs and Skin

Amagufwa, ingingo, inyama, ibitekerezo, n'imitsi y'amaraso by'umubiri bijya gusa n'iby'abantu bakuru.

Mubyumweru 8 uruhu rwo hanze, cyangwa uruhu rusanze, rufata imbera byombi, rutakaza ububonerane bwarwo.

Ingohe zikura nk'umusatsi ugaragara iruhande rw'umunwa.

Chapter 36 Summary of the First 8 Weeks

Ibyumweru 8 bigaragaza kurangira igihe cy'isoro.

Muri iki gihe, isoro ry'umuntu riba ryararumbutse kuva kukaburungu kamwe kugeza hafi k'utuburungu miriyardi 1 aribyo bigira ibihimba birenze 4,000 by'umuntu.

Ubwo rero isoro riba rifite ibirenze 90% by'ibihimba biboneka mu bantu bakuru.

The Fetal Period (8 Weeks through Birth)

Chapter 37 9 Weeks: Swallows, Sighs, and Stretches

Igihe cyo gukura kirakomeza kugeza igihe cyo kuvuka.

Mubyumweru 9, nibwo konka bitangira n'ikiziba cy'inda gishobora kumira ya mavuta.

Ikiziba cy'inda gishobora gupfumbata ikintu, kikajyana umutwe imbere n'inyuma, umusaya ugafunguka no gufunga, ururimi rugakora byose.

Mu maso hagaragara uburyo bwo kumva, ibiganza, n'udutsintsino twerekana ibimenyetso b'ubuzima.

"Mu kwerekana ko wakoze ku gatsinsino," agahinja gakinisha amanyinginya gashobora guhina ivi n'amano.

Ibitsiki by'amaso ubu birabumbye pe.

Mu muhogo, hagaragara ibituma umuntu agira ijwi kikaba ari ikimenyetso cy'uko ijwi ririmo rikura.

Mu isoro ry'igitsina gore, ikiziba cy'inda kigaragaza utuburungu tw'imbutu zidafashe zibyara ziranga igitsina gore, zikuba kenshi mu mufuka w'urubyaro.

Ibihimba bigaragara by'urubyaro bitangira kwigaragaza ubwabyo niba ari igitsina gabo cyangwa igitsina gore.

Chapter 38 10 Weeks: Rolls Eyes and Yawns, Fingernails & Fingerprints

Ubuturumbuke mumukurire hagati y'ibyumweru 9 na 10 byongera ibiro by'umubiri inshuro zirenze 75%.

Mugihe cy'ibyumweru 10 ibitsike byo hejuru y'ijisho bipfundikira ijisho bikanarikoresha.

Agahinja karayura, akenshi karafungura kakanafunga umunwa.

Uduhinja twinshi turigata igikumwe cy'iburyo.

ibice by'amara mu mukondo asubira mugitereko cy'inda.

Amagufwa atangira gukomera

Inzara z'intoki n'iz'amaguru zitangira gukura.

Ibimenyetso by'intoki bigaragara ibyumweru 10 nyuma yo gusama. Izo manzi zishobora kugaragara mu buzima bwose.

Chapter 39 11 Weeks: Absorbs Glucose and Water

Mugihe cy'ibyumweru 11 izuru n'umunwa biba bigaragara. Nkuko kuri buri gihimba kindi cy'umubiri, kuri buri intera isura y'umubiri izahinduka mubuzima bw'umuntu.

Amara atangira gukurura ibifite isukari n'amazi byamizwe n'agahinja.

Igitsina kimenyekana igihe cyo gusama, ingingo zigaragara z'ububyeyi noneho zishobora gutandukanywa igitsina gabo cg igitsina gore.

Chapter 40 3 to 4 Months (12 to 16 Weeks): Taste Buds, Jaw Motion, Rooting Reflex, Quickening

Hagati y'ibyumweru 11 na 12, igi ryongera ibiro hafi 60%.

Ibyumweru 12 haba harangiye kimwe cy'agatatu kibanza, cyangwa amezi 3 yo gutwita.

Mu munwa haza icyumva uburyohe n'ububihe. Igihe cyo kuvuka ibyo kumva uburyohe n'ububihe biguhamho gusa ku rurimi no kurusenge rw'umunwa.

Amara atangira kujegajega nyuma y'ibyumweru 12 gusa agakomeza gutyo kumara igihe cy'ibyumweru 6

Umubiri utangira kuva mu igi n'urura rugari rw'uruhinja aricyo cyitwa umwanda. Uba igizwe n'ibyo agahinja kariye kakiri munda, za proteine n'utuburungu tw'amaraso tuba twarapfuye bikorwa n'inda.

Mugihe cy'ibyumweru 12, igihimba cyo hejuru kiba hafi cyarageze uko kizareshya. Ibihimba byo hasi bifata igihe kugira ngo bigere uko bizareshya.

Uretse gusa umugongo no kugahanga, umubiri wose w'agahinja ushobora kumva iyo kakozweho.

Itandukaniro ry'imikurire y'igitsina n'ibijyana nacyo nibwo bigaragara ubwa mbere. Urugero, uduhinja gore tujegajeza imisaya kenshi kurusha uduhinja gabo.

Ibiramambu, nkuko twabibonye kare, ibituma umunwa uryoherwa byerekana impamvu zishyira gufungura umunwa. Ibyo byitwa "gushaka inzira" kandi birakomeza na nyuma yo kuvuka, bifasha uruhinja rwavutse kumenya imoko za nyina igihe cyo konka.

Isura ikomeza gukura uko urukoko rw'amavuta rugenda rushongera mu ruhu n'amenyi atangira kumera.

Mugihe cy'ibyumweru 15, nibwo utuburungu tubyara amaraso tuza, tukikuba mu igufwa ritarakomera. Utuburungu dukora amaraso tuzaboneka aha.

Nubwo igi ry'umwana ritangira gutera nk'igicuro mubyumweru 6, ariko umugore utwite atangira kumva inda itera ubwambere hagati y'ibyumweru 14 na 18. Ubusanzwe icyo gihe cyitwa icyo hagati mu gutwita.

Chapter 41 4 to 5 Months (16 to 20 Weeks): Stress Response, Vernix Caseosa, Circadian Rhythms

Mugihe cy'ibyumweru 16, impamvu zateye urushinge kwinjira munda y'igi ruhungabanya imbuto igisubizo kikagorana impamvu zituma utwite zikajya ahagaragara, cyangwa se impamvu zituma amaraso ajya ukwayo. Impinja zavutse n'abantu bakuru berekana ibimenyetso bimwe muburyo bitagenda neza.

Mubuhumekero, umuhogo uba noneho ugaragara.

Umweru urinda umuhogo, witwa urutonde rw'amenyo, ubu utwikiriye agahinja. urwo rutonde rurinze uruhu ngo rutagira ikiruhungabanya biturutse ku mavuta.

Guhera kubyumweru 19 agahinja karakina, kagahumeka, n'umutima utangira gutera ukurikije ibiriho ku munsu aribyo bitwa akazi k'umutima.

Chapter 42 5 to 6 Months (20 to 24 Weeks): Responds to Sound; Hair and Skin; Age of Viability

Mugihe cy'ibyumweru 20 ingoma y'amatwi, ituma umuntu yumva, iba imeze nk'iy'umuntu mukuru kuburyo nta kindi ikeneye imbere mu gutwi. Guhera ubu noneho, agahinja gashobora kwerekana ko kumva urusobe rw'amajwi.

Umusatsi utangira gukura ku ruhu rw'umutwe.

Ibigize uruhu, n'izindi ngingo z'umubiri biba byuzuye, harimo igikuriro cy'umusatsi n'uduturugunyu.

Mugihe cy'ibyumweru 21 kugeza kuri 22 nyuma yo gusama, ibihaha bigira ubushobozi bwo guhumeka umwuka. Ibyo byerekana ko umwana aba yakuze kubera ko aba nyuma y'ingobyi ibyo ariko bishoboka kudukinje tumwe na tumwe. Hakoreshejwe ubuhanga buhanitse mubyubuvuzi birashoboka kuramira ubuzima bw'abana bavuka badashitse.

Chapter 43 6 to 7 Months (24 to 28 Weeks): Blink-Startle; Pupils Respond to Light; Smell and Taste

Mugihe cy'ibyumweru 24 ibitsiki by'amaso bifunguka bushya agahinja gakubita ingohe. Ibyo bituma kagira urusaku nkuko bigenda mu igi rizavo igitsina gore.

Abashakashatsi benshi bavuga ko urusaku rwinshi rushobora kugira ingaruka mbi kubuzima bw'agahinja. Ingaruka z'ako kanya harimo kwiyongera umutima guteraguza, agahinja kamira bikabije, no guhindagurika mu myifatire. Ingaruka z'igihe kirekire agahinja gapfa amatwi.

Inshuro zo guhumeka zishobora kwiyongera cyane kugeza kunshuro 44 muguhumeka no gusohora umuka ku munota.

Mugihe cy'amezi 3 ya mbere yo gutwita gukura vuba k'ubwonko bitwara 50% by'ingufu zikoreshwa n'agahinja. Ibiro by'ubwonko byiyongera hagati ya 400 na 500%.

Mubyumweru 26 amaso azana amarira.

Imboni zerekana kubona urumuri nyuma y'ibyumweru 27. Ubwo buryo bugenzura uburemere bw'urumuri iyo rugeze aho ijisho ryakirira urumuri mubuzima bwose.

Ibifasha bindi byose bikenewe biba byuzuye kugira ngo uburyo bwo kwihumuriza bukore. Ubuhanga kubyerekanye n'abana bavuka badashitse bwerekana ubushobozi bwo kumva impumuro ibyo biba mugihe cy'ibyumweru 26 nyuma yo gusama.

Bishyira ibinyasukari mumufuka ugira amavuta byongera uburyo agahinja kamira. Igitangaje, ibigabanya agahinja kumira n'iyi gahuye n'ibintu birura. Akenshi kagaragaza gukambya isura.

Biciye muruhuri rw'intera nko kunyagambura amaguru bimeze nko kugenda n'amaguru, akana kibirindura gatebegatoki.

Agahinja gasa n'akihinye nk'amavuta y'inyongera ari munsi y'uruhu. Amavuta afite uruhare rukomeye mukubumbatira ubushyuhe bw'umubiri no kuzigama ingufu nyuma yo kuvuka.

Chapter 44 7 to 8 Months (28 to 32 Weeks): Sound Discrimination, Behavioral States

Mugihe cy'ibyumweru 28 agahinja gashobora gutandukanya urusaku rwinshi n'urusaku rukeya.

Mugihe cy'ibyumweru 30, uburyo bwo guhumeka buba busanzwe gahumeka mu kigererenyho gihwanye na 30 kugeza kuri 40%.

Mugihe cy'amezi 4 yanyuma yo gutwita, agahinja kerekana gukora ibintu bifite gahunda bijyana n'ibihe byo kuruhuka. Iyo myifatire yerekana kwiyongera muburyo budasobanutse imikorere y'iteraniryo ry'ibituma umuntu yumva.

Chapter 45 8 to 9 Months (32 to 36 Weeks): Alveoli Formation, Firm Grasp, Taste Preferences

Hafi ibyumweru 32 amashami nyayo y'ubuhumekero, cyangwa "udufuka" tw'utuburungu tw'umuka, dutangira gukura mu bihaha. Tuzakomeza gukura kugeza igihe cy'imyaka 8 nyuma y'ivuka.

Mugihe cy'ibyumweru 35 agahinja kaba gafunze igipfunsi.

Agahinja kerekana ibintu binyuranye bituma umwana atakaza amahitamo yo kubonjya nyuma yo kuvuka. Urugero, ababyeyi barya ibyatsi bifite kuba byasindisha, bituma umwana akunda ibijya gusa nabyo nyuma y'ivuka. Impinza zitagira aho zahuriye n'ibisindisha ntizibikunda.

Chapter 46 9 Months to Birth (36 Weeks through Birth)

Uruhinja rutangira akazi ko gukora uruhuri rw'ibiganisha inzira y'agateganyo hagati y'igi n'uruhinja rwavutse.

Ako kazi kagaragazwa n'ubwivumbagatanye mu kiziba cy'inda, bituma umwana avuka.

Guhera igihe cyo gusama kugeza igihe cyo kubyara na nyuma yaho, umubiri w'umuntu wubaka imbaraga muburyo butaziguye bukomeza. Ubuvumbuzi bushyashya muri urwo rutonde burerekana ingaruka ku mwana mubuzima bwe bwose.

Nkuko twashoboye kumva mubyerekeranye n'amajyambere y'umubiri w'umuntu, ni ingenzi kurinda ubuzima bw'umwana mbere na nyuma yo kuvuka.