UW Medicine

ናይ ኣእምሮ/ሓንጎል ምሟት

እንታይ ምባል ከምዝኾነ

ሓደ ሓደ ስድራታት ኣእምሮ/ሓንጎል "መይቱ" ምባል እንታይ ምባል ከምዝኾነ ሕቶ ኣለዎም፡፡ እዚ ፅሑፍ ዚ ካልኦት ሰባት ጠቓማይ ኮይኑ ዝረኸቡዎ መልእኽቲ ብውሽጡ ሒዙ ኣሎ፡፡እዚ ፅሑፍ ሓካይም ብኣእምሮ ምስራሕን ዘይምስራሕን ተደሪኾም ሓደ ሰብ መይቱ ኣሎ ኢሎም ከመይ ገይሮም ከምዝውስኑ ዝሕብር እዩ፡፡

ናይ ኣእምሮ/ሓንጎል ምሟት ማለት እንታይ ማለት እዩ?

ናይ ሓንጎል/ኣእምሮ ምሟት ሓደ ሰብ መይቱ እዩ ኢልካ ንምዝራብ ሕጋዊ ኣተረጓጉማ ዝህብ እዩ፡፡ እዚ ምባል ኣእምሮ/ሓንጎል ንመወዳእታን ናብ ዘይምለሰሉ ደረጃን (ብሬንይን ስተምስ ተባሂሉ ዝፈለጥ'ውን) ሓፈሻዊ ስርሑ ጠጠው ከብል ከሎ ማለት እዩ፡፡

እዚ ፅሑፍ እዚ በዚ ኣፀጋማይ ወቕቲ ንዓኻትኩም ዝጠቕም ሓበሬታ ከህበኩም እዩ ኢልና ንኣምን፡፡

ናይ ሓደ ሰብ ኣእምሮ መይቱ ክባሃል ከሎ ዘጋጠሞ ሓደጋ ወይከዓ ሕማም ብጣዕሚ ሕማቕን ኦሮማይ ናብ ዘይምለሰሉ ደረጃ ምብፃሕን ከምው'ን ዘይድሕን ምባል እዩ፡፡ኣብዚ ደረጃ እዚ ሰባት ዓርሶም ክኢሎም ክትንፍሱ ኣይክእሉን ምባል እዩ፡፡ ክትንፍሱ ዝኽእሉውን ብሓገዝ ቬንትለተር ብዝባሃል ማሽን እዩ፡፡ እዚ ቁሩብ ከደናግር ይኽእል ፤ምኽንያቱ ከዓ ልቢ ምህራሙ ጠጠው ስለዘየበለ፡፡ክንሪእዮም ከለና ዝደቀሱ እዮም ዝመስሉ፤ ልቢ ምህራሙ ጠጠው ዘየብለሉ ምኽንያት ካዓ እቲ ማሽን(መሳርሒ) ኣየር ናብ ውሽጢ ዛንቡኡ ስለዘመላልስ እዩ፡፡

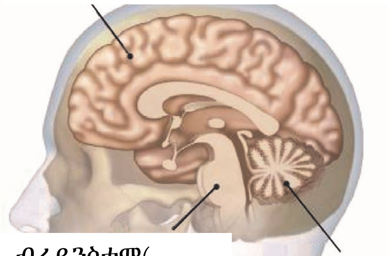
እዚ ኣብ ኡ ንዝርከቡ ኣባል ስድራታት ከቢድ ክኸውን ይኽእል፡፡ ደቂሶ እዩ ኢሎም ንምእማንውን ክመርፁ ይኽእሉ እዮም፡፡ነገር ግን እቲ ቬንትለተር(ማሽን) ምስጠፍአ ትንፋሱ ውን ይጠፍእ፡፡ ኣተሀራርማ ልቢ 'ውን ቀልጢፉ ጠጠው ይብል፡፡

ናይ ሓደ ሰብ ኣእሮ ምሟቱ ሓካይም ከመይ ገይሮም የረጋግፁዎ ?

ናይ ሓደ ሰብ ኣእምሮ ብጣዕሚ ዝተጎድአ ምኧኑ ንምፍላጥ ሓካይም ካብ ዝጥቀሙሉ መንገዲ እቲ ሓደ ብቕዓት ኣሰራርሓ ናይ ኣእምሮ /ሓንጎል ብምፍታን እዩ፡፡ ቀለልቲ ትእዛዛት ምፍፃም ምኽኣሉን ፤ ወይከዓ ኣካላዊ ምብርባራት ብምፍናው ኣእዳው ወይከዓ ኣእጋሩ ንኸንቀሳቕስ ብምግባር እዩ፡፡ ካብዚ ብተወሳኺ ክፋል ሓንጎል (ብሬይን ስተምስ) ዝቆፃፀሮም ተግባራት ንኣብነት ሰምሰም ምግባር፤ምሕንጋግ፣ምስዓል፣ ኣብ ዓይኖም መብራህቲ ብምውላዕ ከመይ ከምዝምልሱን ከምዝፍፅሙን ብምግምጋም እዩ፡፡

ስዒቦም ዘለው ኩሎም ኩነታት ክፍጠሩ ከለው ሓካይም ናይ ሓደ ሰብ ኣእምሮ መይቱ ኣሎ ኢሎም ይድምድሙ፡፡

- ኣብ ኣእምሮ ዝበፅሐ ሓደጋ ዘይድሕን እንተኾይኑ
- ኣእምሮ ወይከዓ ብሬይን ስተምስ ስርሑ እናሰርሐ ምኧኑ ዝሕብር ገለ መረጋገፂ እንተዘየለ
- ሙቐት ሰብነት እንተወሪዱ(ካልኦት ፀላዊ ነገራት ንኣብነት ፈውሲታት እንተተወጊዶም)



እዚ ስእሊ ብሬይን ስተም፣ሴሬብለምን ሴረብረም ዝተብሃላ ክፋል ናይ ኣእምሮና ዘሪኢይ ስእሊ እዩ፡፡ ብሬን ስተም ልተፈላለዩ መሰረታዊ ተግባራት ከም ኣተነፋፍሳ፣ ኣወሓሕጣ፣ትርግታ ልቢን ፀቕጢ ደምን ይቆፃፀር፡፡ ኣእምሮና ምስ ዓንዲ ሕቖና ዘገናኒይ'ውን እዩ፡፡

እንታይ ንፅበ ?

መርመራ ምሟት ናይ ኣእምሮ ዝግበር ብሕክምናን ሕጋዊን ረቛሓታት ተደሪኹ እዩ፡፡እዚ መርመራ ዚ ክልተ ልተፈላለዩ ዶክተራት ኣብ ልተፈላዩ 2 እዋናት ሃላዋት ናይ ተሓከማይ ጋምጋም ንኽገብሩ ዘገድድ እዩ፡፡ እዚኦም ዶክተራት ኣብ መርመራ ምሟት ኣእምሮ ክኢላታት (ኤክስፐርታት) ዝኾኑ እዮም፡፡

እዚኦም ዶክተራት ብሒጊ ኣድላይ ዝኾነ ሕክምናዊ መርመራ ይገብሩ፡፡ኣእምሮ መይቱ ኣሎ ኢልካ ንምውሳን ክልቲኦም ዶክተራት ስዒቦም ንዘለው ኩነታት ግድን ክረኽቡ ኣለዎም፡፡

- **ብሰንኪ ሕማም ዝግበር ገለ ኣካል ምንቕስቓስ (motor function) ዘይምህላው፡**-ዶክተራት ማቻ ዘይህቡ ምትንካፋት ንኣብነት ጫፍ ናይ እዝኒ ወይከዓ መንኩብ ብጣዕሚ ብምጭባጥ ናይ ተሓካማይ ግብረ-መልሳዊ(ምንቕስቓሳት)የረጋግፁ፡፡ ሓደሓደ ግዘ ዓንዲሕቋዊ ዋሕዘ ከም ናይ ጭዋዳ ፈርፈርታ ክራኣዩ ይኽእሉ እዮም ነገር ግን እዚኦም ግብረ-መልሳዊ ምንቅስቓሳት(motor function) ኣይኮኑን፡፡
- ***ሃንደበታዊ ምንቅስቓስ ታሕተዋይ* ክፋል ሓንጎል (ብሬይንስተምስ) እንተዘየለ፡**-እቲ ሰብ ግብረ-መልሲ ዝህብ ምኺኑን ዘይምኺኑን ንምርግጋፅ ዶክተራት ኣብ ልዕሊ ዓይኒ ተሓካማይ መብራህቲ ይውልዑ፡፡ ካብዚብተወሳኺንኽክስምስም ብኢዶም ንዓይኑ ይትንክፍዎ፤ ንኽክስዕል ወይ ከዓ ንኽክሕንግግ ውሽጢ ጉሮሩኡ ይትንክፉዎ፡፡ካልእ ዓይነት መርመራ ከዓ ዙሕል ማይ በረድ ኣብ እዝኑ ገይርካ ዓይኑ ከንቀሳቕስ ከሎ ምክትታል እዩ፡፡
- **ብጀኻ ቬንትሌተር(መተንፈሲ ማሽን)ክትንፍስ እንተዘይኪኢሉ፡፡** ኣተነፋፍሳ ቴራፒን ዶክተሩን ብሓባር ኮይኖም ተሓካማይ ዝትንፍሰሉ ቬንትሌተር ማሽን ንሓፂር እዋን ብምቁራፅ/ብምውፃእ ምውሳኽ ዓቕን ካርቦንዳይኦክሳይድ ናይ ደም ልምትንፋስ እንተተባቢዒዎ ምርኣይ እዩ፡፡

ሓዳሓደ ግዘ ካልኦት ዓይነት መርመራታት ኣድለይቲ ክኾኑ ይኽእሉ እዮም፡፡ ምሟት ኣእምሮ ናይ ተፈታዊኹም ከመይ ገይሮም ከም ዘረጋገፁዎ መንታን ከሕብሩኹም ንዶክተርኩም ሕተቱዎም፡፡

ድሕሪ ውሳነ ምሟት ኣእምሮ ናይ ሓደ ሰብ እንታይ ይግበር ?

ሓደ ሰብ ኣእምሩኡ መይቱ ኣሎ እንተተባሂሉ ሂወቱ ሓሊፉ/ዓሪፉ/መይቱ ኣሎ ምባል እዩ፡፡ ምሟት ኣእምሮ ዘይምለስን ዘልኣለማዊን እዩ፡፡ከድሕን ኣይኽልን፡፡

ምውት ዝተብሃለ ሰብ ብሓገዝ ማሽን(ቬንትሌተር) ክትንፍስ(ልቡ ክሃርም) ይኽእል ፡፡ ነገር ግን ንኽክትንፍስ ኣእምሮ ጉቡእ መልእኽቲ ንሰብነቱ እናመሓላለፈ ኣይኮነን፡፡ ብዘይ ቬንትሌተር ማሽን ሰብነቱ ክትንፍስ ኣይኽእልን ፤ልቡ ውን ቀልጢፉ ጠጠው ትብል፡፡

ብመሰረት ሕጊ ሓደ ሰብ መይቱ እዩ ልባሃል እቲ ሓኪም ኣእምሩኡ መይቱ ኣሎ ኢሉ እንትውስን እዩ፡- እዚ ማሽን/ቬንትሌተር ዝተቋረፀሉ ግዘ ኣይኮነን፡፡እቲ ዶክተር ኣእምሩኡ መይቱ ኣሎ ኢሉ እንተወሲኑ ልቡ፣ሳንቡኡን ካልኦት ክፋል ሰብነቱን ንክሰርሑ ንገብሮም ዝነበርና ኩሉም ኣፋውሳዊ ምክንኻናት ምቁራፅ ንጅምር፡፡

***መዋታይ* ወፋይ ኣካል (ኦርጋን) እንተኾይኑ ፡-** ዋላ ድሕሪ ምሟት ኣእምሩኡ እቲ ቬንትሌተር እናሰርሐ ንኽቕፅል ክንገብር ንኽእል፡፡ካብ ትካል ኣከብቲ ኣካላት ናይ ውህብቶ ዝመፁ ሰራሕተኛታት ብዛዕባ ከይዲ ውፈያ ኣካል(ኦርጋን) ሓበሬታ ይህቡ፡፡ እዚኦም ሰራሕተኛታት ናይ ዚ ሆስፒታል ሰራሕተኛታት ኣይኮኑን፡፡

መርመራ ምሟት ኣእምሮ ተሓከምቲ ዝገብሩ ዶክተራት ሰራሕተኛታት ትካል ኣከብቲ ውፋይ ኣካላት(ኦርጋን) ኣይኮኑን፡፡ እዚኦም ዶክተራት ምቕያር ኣካል ዘድልዮም ተሓከምቲ(ተጠባበቕቲ) ዓሚል'ውን የብሎምን፡፡

ነሕና ኣብዚ ዘለና ንምሕጋዝ እዩ፡፡

ኣእምሩኡ ንዝሞተ ሰብ ምስንባት ብጣዕሚ ኣፀጋማይ ክኸውን ይኽእል፡፡እቲ ቬንትሌተር ናብ ትፈታዊ ቤተሰብኩም ሳምቡእ ኣየር/ኦክስጅን ስለ ዘእትውን ዘውፅእን ንነብሱ ብኢድኩም እንተተንኪፍኩሙዎ ሰብነቱ ውዕይ ክኸውን ይኽእል፣ሕብሪ ናይ ገፆም'ውን ዘይተቐየረ ክመስል ይኽእል፡፡

እቲ ቬንትለተር/መተንፈሲ ማሽን ክወፅእ/ክቋረፅ ከሎ ሓደሓደ ስድራታት ኣብ ውሽጢ ክፍሊ ሕክምና ንምፅናሕ ይደልዩ፡፡ካልኦት ካዓ ናይ ኣእምሮ ምሟት ምስትነገረ ቀልጢፎም ናብ ገዝኦም ምኻድ ይመርፁ፡፡

ታይ ምግባር ከምዝግባኣኩም ምስ ኣባል ስድራኹም ኮይንኩም ምውሳን ትኽእሉ ኢኹም፡፡ብክብረትኩም ድልየትኩም ንነርስታት ሓብሩዎን፡፡

እስኻትኩምን ኣባል ስድራኹምን ኣብ ውሽጢ ክፍሊ ንምፅናሕ እንተደሊኹም ልተፈላለዩ ባህልታትኩምን ስርዓተ-ፆለትኩምን ክትገብሩ ትኽእሉ ኢኹም፡፡ ክኢላ መንፈሳዊ ኣገልግሎት ናይ ሆስፒታል ምሳኻትኩም ንኽርከብ እንተደሊኹም ንነርስታት ሓብሩወን፡፡

ካልኦት ስድራታት ቅድሚ ሕጅ ዘልዐልዎም ሕቶታት

ሓውና ኣብ ኮማ (ቬጅቴቲቭ ስቴት) እዩ ዘሎ ክባሃል ይካኣል ዶ?

ኣይኮነን፡፡ ናይ ኣእምሮ ምሟት (ብሬይን ዴዝ) ኮማ ወይከዓ ቬጅቴቲቭ ስቴት ኣይኮነን፡፡ ኣብ ውሽጢ ኮማ ዘሎ ሰብ ኣእምሩኡ ይሰርሕ፡፡ቬጅቴትቭ ስቴት ዝባሃል ከዓ ክፋል ታሕተዋይ ሓንጎል (ብሬን ስተምስ) ንኽክትንፍስ ዘኽእል ስራሕ ይሰርሕ፡፡ ሓንሳብ ኣእምሮ እንተመይቱ ጊና ኩሎም ስራሕቲ ኣእምሮ ጠጠው ክብሉ እዮም፡፡

ኣእምሮኡ መይቱ ዝደሓነ ሰብ ኣሎ ዶ?

የለን፡፡ ሞት ዘልኣለማዊ እዩ፡፡ ሓደ ሰብ ካብ ኣእምሮ ሞት ድሒነ ኣለኹ እንተይሉ ብትኽክል ድሒኑ ከይኮነስ እቲ መርመራ ምሟት ኣእምሮ ጉጉይ ነይሩ ማለት እዩ፡፡

ገለ ዝግበር ካልእ ነገር ኣሎዶ?

ቅድሚ ምሕባር ምሟት ኣእምሮ ናይ ሓውኩም ብመሰረት ኑዛዜኡ ሂወቱ ንኽተርፍ ዝግበር ኩሉ ፃዕሪ ገይርና ኣለና፡፡ድሕሪ ምሟት ኣእምሮ ግን ዝድሕነሉ ምንም ዓይነት ዕድል የለን፡፡

ኢንሹራንሳት ኣብ መርመራ ምሟት ኣእምሮ ፅዕንቶ ክገብሩ ይኽሉ ዶ?

ኣይክእሉን፡፡ መርማራ ምሟት ኣእምሮ ካብ ንዋታዊ /ገንዘብ ነገራት ሙሉእ ንሙልእ ናፃ እዩ፡፡እቲ ተሓካማይ እንትሞት ብርግፀኝነት መይቱ ኣሎ ኢሎም ናይ ምውሳን ሓላፊነት ናይ ዶክተራት ጥራሕ እዩ፡፡

ምስ ባህሊናን ሃይማኖትናን ዘይኸድ ነገር ንኽንገብር ሓካይም እንተኣዚዞምና እንታይ ክንገብር ኣለና?

ምስ ዶክተርኩም፣ነርስኹም፣ሶሻል ዎርከርኩም ወይከዓ ቀሺኹም/ሸኽኩም ተነጋገሩ፡፡ መራሒ ሃይማኖትኩም(ቀሺ/ሸኽ) ወይከዓ እትኣምኑዎ ሰብኩም ናብ ሆስፒታል ኣምፂእኹም ምስ ጉጅለ ሕክምና ሆስፒታል ትዘራረቡ ትኽእሉ ኢኹም፣ወይከዓ ምስ ሰራሕተኛ ግልጋሎት ፀሎት ናይ ሆስፒታል ምዝርራብ ትኽእሉ ኢኹም፡፡

ዘለኩም ገለ ሕቶ በኽብርትኩም ሕተቱና፡፡

ሕቶታት?

ሕቶታትኩም ጠቓምቲ እዮም፡፡

ገለ ሕቶ ወይ ከዓ ሓሳብ እንተሃሊዩኩም በጃኻትኩም ንገሩና፡፡

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UW Medicine

Brain Death

What it means

Some families have questions about what "brain death" means. This handout offers information that others have found helpful. It explains how doctors decide that a person is dead based on their brain function.

What is brain death?

Brain death is the legal definition of death. It is "the complete and irreversible cessation (stopping) of all functions of the entire brain, including the brainstem."

We hope that this handout is helpful at this difficult time.

When a person is brain dead, their brain injury or illness is so severe that they cannot possibly recover. At this point, they cannot breathe on their own. Breathing must be done by a machine called a *ventilator*. It can be confusing, because their heart keeps beating, and they may look like they are just asleep. But their heart is beating only because the machine is moving air through their lungs.

This can be hard for families who are present. They may want to believe that their loved one is just sleeping. But when the ventilator is turned off, breathing will stop. Soon after that, the heart will also stop.

How do doctors decide if a person is brain dead?

One way doctors assess how badly the brain has been injured is by testing how well it is working. They may see if a person can follow simple commands or respond to physical stimulation by moving their arms or legs. They may also test tasks that the brainstem controls, such as blinking, gagging, coughing, and how the eyes respond to light.

Doctors will assess a person for brain death when all of these are true:

- The cause of the brain injury is permanent.
- There is no evidence of brain or brainstem function.
- Other factors are ruled out, such as drugs or low body temperature.

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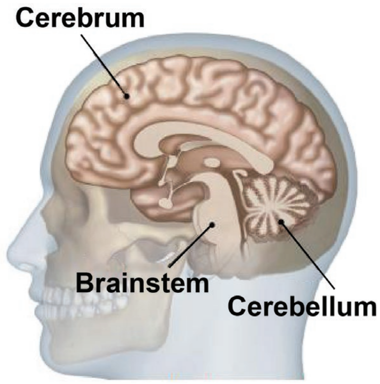

This drawing shows the parts of the brain called the brainstem, cerebellum, and cerebrum. The brainstem controls basic tasks such as breathing, swallowing, heart rate, and blood pressure. It also connects the brain to the spinal cord.

What to Expect

A diagnosis of brain death is based on medical and legal standards. The diagnosis requires 2 different doctors to assess a patient's condition at 2 different times. These doctors are experts in diagnosing brain death.

The doctors will do medical tests that are required by law. To declare brain death, both doctors must find that there is:

- **No motor function in response to pain.** The doctors will check for a *motor response* (movement) to something that can cause discomfort, like a hard squeeze of the earlobe or shoulder. Sometimes spinal cord reflexes, such as twitching or muscle contractions, may occur, but these are not motor responses.
- **No brainstem reflexes.** The doctors will shine a light at the person's eyes to look for a reaction. They will also touch their eyes and watch for a blink. They will touch the back of their throat to see if they cough or gag. Another test involves putting ice water in the person's ears and watching their eye movement.
- **Cannot breathe without the help of the ventilator.** For a short time, the respiratory therapist and doctor will disconnect the person from the ventilator and check to see if the rising carbon dioxide levels in the blood stimulate the person to take a breath.

Sometimes other testing is needed. Ask your doctor to explain or show you how they assessed your loved one for brain death.

What happens after someone is declared brain dead?

If someone is brain dead, they have died. Brain death is permanent and cannot be reversed. There is no recovery.

A person who has been declared dead may still have a beating heart while the ventilator is working. But their brain is no longer sending the signals that tell the body to breathe. Without the ventilator, the body cannot breathe and the heart will soon stop.

The legal time of death is when the doctor declares brain death. This is **not** when the ventilator is removed. When the doctor declares brain death, we will begin the process of stopping all medical care that keeps the body's lungs, heart, and other organs working.

If the deceased wished to be an organ donor, we may keep the ventilator working after they are declared brain dead. Staff from the organ donation organization will explain the donation process. These staff are **not** hospital staff.

Doctors who assess patients for brain death are **not** staff from the organ donation organization. These doctors also cannot have patients on the organ transplant waiting list.

We Are Here to Help

Saying goodbye to a loved one who is brain dead can be very hard. Your loved one may be warm to the touch and have color in their face while the ventilator fills their lungs with oxygen.

Some families want to stay in the room while the ventilator is removed. Other families decide to go home right after brain death is declared.

You and your family will decide what you want to do. Please tell the nurse what you and your family need. We are here to support you.

If you and your family want to stay, you may practice most family traditions, rites, and rituals. Tell your nurse if you would like someone from the hospital's spiritual services to be present.

Questions Other Families Have Had

Is it possible that our loved one is just in a coma or a vegetative state?

No. Brain death is not a coma or vegetative state. A person in a coma has brain activity. Someone in a vegetative state often has function in the brainstem that allows them to breathe. Once brain death occurs, all brain function stops.

Has anyone ever recovered from brain death?

No. Death is permanent. If anyone claims to have recovered from brain death, then the diagnosis was wrong.

Is there anything else that can be done?

Before brain death is declared, we will do everything possible to save your loved one's life, based on their desires as shown in their advance healthcare directive. After brain death, there is no chance of recovery.

Does health insurance coverage influence a diagnosis of brain death?

No. A diagnosis of brain death is completely separate from financial issues. It is the doctor's duty to pronounce a death when it occurs.

What should we do if the doctors are saying things that do not fit with our culture or religion?

Talk with your doctor, your nurse, your social worker, or a chaplain. You can bring your religious leader or trusted friend to the hospital to talk with the hospital team, or you may ask to talk with the hospital's spiritual care services staff.

Please ask us any questions that you have.

Questions?

Your questions are important. Please talk with us if you have any questions or concerns.

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