

“An explanation of
brain stem death
for relatives”



“ Brain stem death is a difficult concept to grasp. We hope that the simple questions and answers in this leaflet will help you to understand brain stem death and what it means if your loved one is pronounced brain stem dead. If you have any other questions please talk to the medical and nursing staff ”.

Brain stem death is death

It is permanent and cannot be reversed. When a person dies, normally the heart stops beating and no blood gets circulated to the brain, therefore the brain dies.

However, if a patient has suffered an insult to the brain due to disease or injury and they are put on a ventilator, brain stem death may occur before the heart stops.

What is brain stem death?

It is the complete and irreversible cessation of function in the brain stem, which is the area at the base of the brain responsible for maintaining life.

What are the main causes of brain stem death?

Injuries to the brain include:

- ~ Road traffic accidents
- ~ Falls
- ~ Blows to the head
- ~ Bleeding into or around the brain/Strokes
- ~ Overdose of specific drugs
- ~ Poisoning including some overdoses
- ~ Drowning
- ~ Suffocation
- ~ Others

How and who decides that my loved one is brain stem dead?

Two senior independent doctors perform brain stem death tests. The tests are based on sound and legally accepted guidelines. The tests are performed twice. If both sets of tests confirm brain stem death, the time of death is recorded as the time of the first set of tests.

Brain stem death tests will include the following:

- ~ Pupil reaction to light
- ~ Cough reflex
- ~ Blink reflex
- ~ No response to physical stimulation
- ~ Whether the patient can breathe

Only when doctors are certain that all these reflexes are absent on both occasions will the diagnosis of brain stem death be made.

Are there drugs that can stop the brain from functioning and might give a false result?

Yes, some sedatives and other drugs used in Intensive Care may do this.

Before the doctors perform the brain stem tests they will have satisfied themselves that no drugs or other medical conditions could be affecting the patient's level of consciousness.

If my loved one is brain stem dead, why is their heart beating and their chest rising and falling?

The chest is rising and falling because the ventilator is pushing oxygen in and out of the lungs. The heart is a pump, which will continue to beat as long as there is enough oxygen reaching it. The use of the ventilator ensures that the heart has enough oxygen.

Does my loved one feel pain?

No. When someone is dead there are no feelings of pain - remember brain stem death is death.

When the doctors make the diagnosis of brain stem death what happens next?

The doctor and donor liaison sister will talk to you about the diagnosis and decisions you may have to make.

You will be asked about your loved ones wishes regarding organ donation, unless his/her organs would not be suitable for transplation.

organ donation will not occur. Since your loved one is already dead, the support of the ventilator and any supportive drugs will be removed.

The official time of death is the time when the first sets of brain stem tests were performed.

What happens if we do agree to organ donation?

Ventilation and all other support is continued to maintain adequate supplies of oxygen and blood to the organs while arrangements for the donation are being made. These arrangements are made by the Transplant Co-ordinator from the Belfast City Hospital, who will answer any questions you may have.

“ If you are unsure about any issues relating to brain stem death, please talk to the medical staff or, donor liaison sister who will be happy to answer your questions ”.