### LIFE in a COMA



- 0. LIFE in a COMA Story Preface
- 1. ELIZABETH KING'S ACCIDENT

#### 2. LIFE in a COMA

- 3. MATT KING and HIS FAMILY
- 4. FINDING BRIAN SPEER
- 5. KING KAMEHAMEHA and HIS DESCENDANTS
- 6. THE PRINCESS and HER SCHOOLS

BEHAVIOR	RESPONSE	SCORE
Eye opening response	Spontaneously	4
	To speech	3
	To pain	2
	No response	1
Best verbal response	Oriented to time, place, and person	5
	Confused	4
	Inappropriate words	3
	Incomprehensible sounds	2
	No response	1
Best motor response	Obeys commands	6
	Moves to localized pain	5
	Flexion withdrawal from pain	4
	Abnormal flexion (decorticate)	3
	Abnormal extension (decerebrate)	2
	No response	1
Total score:	Best response	15
	Comatose client	8 or less
	Totally unresponsive	3

This chart depicts the criteria which physicians use to determine whether a person is comatose. It is called the Glasgow Coma Scale/Score.

Elizabeth (Joanie) King was no longer breathing when rescuers pulled her out of the water.

It doesn't take long for <u>an adult brain</u> to sustain <u>serious damage from lack of oxygen</u>. Since <u>breathing</u> is <u>oxygen's pathway into the body</u>, the lack of breathing - without immediate life support to replace what the body can no longer do on its own - puts a non-breathing person on a life-threatening path.

By the time she was rushed to the hospital, with life support in place, Mrs. King was in a coma. What does that mean?

The English word "coma" is based on the Greek word "koma" -  $\kappa\omega\mu\alpha$  - meaning "deep sleep." Visitors observing a comatose person think the injured individual appears to be sleeping, but that is not the case. A ringing alarm clock will not rouse a comatose patient. We can't shake people in a coma and expect them to "wake up!"

Damaged brain cells, harmed in various ways - including a lack of oxygen - can cause someone to lose consciousness. If those consciousness-arousing cells are permanently damaged, the patient may never come out of the coma.

However ... even a comatose person, whose <u>brain is functioning</u> at a <u>very low level of alertness</u>, can sometimes hear, and comprehend, what people say. That is why doctors encourage visitors to talk with patients - even if they don't respond - and why they warn visitors to be careful about the words they choose in the presence of a comatose patient.

Sometimes seriously injured people - like Mrs. King - are unable to breathe well (or at all) on their own. When that happens, doctors insert a tube into the patient's windpipe, allowing her to <u>breathe with a ventilator</u>. Since patients in that condition cannot eat normally, they are fed with a <u>feeding tube</u>.

While she was healthy, Mrs. King decided to give specific directions about her future - if anything ever happened to impair (or eliminate) her decision-making capacity. She signed a "<u>Living Will</u>," a legal document telling health-care providers and family members how they were to manage such things as life-support.

Her living will, among other things, gave explicit instructions what to do if she ever reached a "persistent vegetative state." Under those no-hope circumstances - as ordered by an Elizabeth King who was still of "sound mind" - her doctors and family members were required to withdraw all life-support care.

In other words, the only thing her doctors were allowed to do - no matter what her family wanted - was to keep her comfortable, until she died.

Who were the members of Mrs. King's family?

See Alignments to State and Common Core standards for this story online at: http://www.awesomestories.com/asset/AcademicAlignment/LIFE-in-a-COMA-The-Descendants

See Learning Tasks for this story online at:

http://www.awesomestories.com/asset/AcademicActivities/LIFE-in-a-COMA-The-Descendants



# **Questions 2 Ponder**

### **How Do Family Members Decide End-of-Life Issues?**

In "The Descendants," Elizabeth ("Joanie") King's family has learned that she is in a vegetative state as a result of a powerboat racing accident. Now her family must decide what that means since Mrs. King has not given specific instructions in a document called a "Living Will."

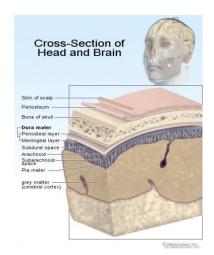
If a person is in a coma, with no chance to "come out of it," what are the issues a family must face if the person does not have a "Living Will?"

Under such circumstances, can there be a "right" decision and a "wrong" decision? How would anyone be sure if the ill person has not left instructions on how to handle the situation?

Doctors are trained to help people get better from illnesses and injuries. If there is no hope for a person who is in a "persistent vegetative state," do the situational dynamics change for the medical team? If so, how?

Do they change for the patient's family? If so, how?

# **Media Stream**

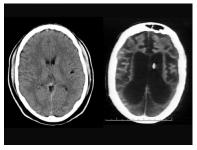


## Adult Brain - Cutaway Cross-Section Drawing

Image of the human brain, online via <a href="EMedicineHealth.com">EMedicineHealth.com</a>. Copyright, EMedicineHealth.com, all rights reserved. Image provided here as fair use for educational purposes.

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#### Brain Damage from Lack of Oxygen

Images contrasting a healthy brain and an oxygen-deprived brain are from the Terri Schiavo case. The CT Scan (shown on the right side of the image) was made by  $\underline{\text{Dr.}}$  Ronald Cranford in 2002.

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#### Elizabeth King - Breathing with a Ventilator

Image online, courtesy the National Heart Lung and Blood Institute.

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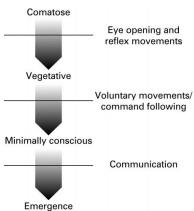
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## Comatose Person

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#### Comatose - Levels of Alertness

Image from *Journal of Neurology, Neurosurgery & Psychiatry* - article entitled "A Twitch of Consciousness: Defining the Boundaries of Vegetative and Minimally Conscious States" - published online 20 December 2007. Image copyright, *J Neurol Neurosurg Psychiatry*, all rights reserved. Provided here as fair use for educational purposes. View this asset at:

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### Breathing - How Oxygen Travels in the Body

Clip from a Fairfax Biology documentary on how blood and oxygen are transported throughout the body. Online, courtesy Fairfax Biology's Channel at YouTube. View this asset at:

http://www.awesomestories.com/asset/view/Breathing-How-Oxygen-Travels-in-the-Body1



## Feeding Tubes - How They Work

Animated video clip, created by Nucleus Medical Art, depicts the installation and use of a feeding tube in the human body.

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