

החידון המדע הירושלמי  
Jerusalem Science Contest



Part 2, Slides 8 thru 14  
Jewish Law Issues



# Halacha defining death

[Jewish Medical Ethics: The Brain Death Controversy in Jewish Law](#)

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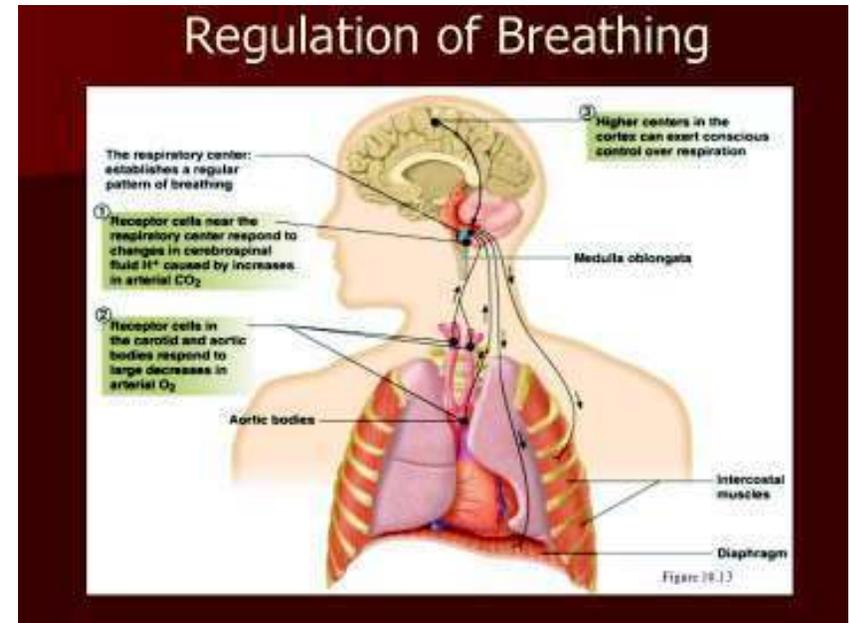
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Rabbi Breitowitz received his Rabbinical Ordination from the Ner Israel Rabbinical College in 1976; B.S. with honors from Johns Hopkins University; J.D (magna cum laude) from Harvard Law School in 1979; and a Doctorate in Talmudic Law from Ner Israel in 1992. He has lectured extensively throughout the US and Israel on medical, business, and family ethics. He has published numerous articles on bankruptcy, commercial law, medical ethics, family law, and halakha. In addition to being the Rabbi of the Woodside Synagogue in Silver Spring MD, Rabbi Breitowitz is a Professor of Law at the University of Maryland.

## WHAT IS "BRAIN DEATH" AND HOW IS IT DIAGNOSED?

### How Lung and Heart operate – A major distinction

- A. The Lung operates** when the “vagus nerve” is stimulated by an excess of carbon dioxide in the blood.
- The nucleus of the vagus nerve is located in the medulla section of the brain (brain stem).
  - Destruction or dysfunction of the brain stem will make the vagus nerve inoperable and breathing will automatically stop.
- B. The Heart's** operation is independent of the brain.
- The heart will cease beating when the heart muscle is deprived of oxygen.
  - If oxygen is provided to the heart in the form of artificial breathing, the heart will continue to beat normally.
- C. Without intervention,** the time lag between **brain death** and **circulatory death** is two to ten days.



## WHAT IS "BRAIN DEATH" AND HOW IS IT DIAGNOSED? Cont.

### Steps taken in a clinical diagnosis of "brain-death"

- A. They vary among institutions.
- B. The variation of steps taken by institutions have ramifications in Jewish law.
- C. What are the steps trying to ascertain?
  - i. **Unresponsiveness** - that the patient is in a deep coma and is profoundly unresponsive to external stimuli
  - ii. **Reflex absence** - absences of elicitable brain-stem reflexes such as swallowing, gag, cough, sigh, hiccup, corneal, and vestibulo-ocular (ear)
  - iii. **Absence of spontaneous respiration** - as determined by an apnea test
  - iv. **Evoked potentials** - performance of tests for evoked potentials testing the brain-stem's responsiveness to a variety of external stimuli.
- D. These tests are to be repeated between 6-24 hours later to insure irreversibility - with life support supplied for the interim.
- E. a specific cause for brain dysfunction must be identified before the patient will be declared dead.

## WHAT IS "BRAIN DEATH" AND HOW IS IT DIAGNOSED? Cont.

### Radionuclide Cerebral Angiography [nuclide or radioisotope scanning.

- A. A harmless **radioactive dye is injected** into the patient's blood-stem, typically through the intravenous tubing already in place.
- B. In brain-dead patients, scanning will reveal an **abrupt cutoff of circulation** below the base of the brain with no visible fluid draining away.
- C. While many observers have described this test as **nearly 100% accurate**, *others have claimed* the brain-stem circulation, especially in the medulla, is not well visualized and absolute absence of blood flow to this region cannot be diagnosed with certainty.



### Lazarus Reflex

- A. a patient who is brain dead may theoretically continue to have **muscle spasms or twitchings** or even sit up.
- B. It is undisputed is that such movements are coordinated not from the brain, **but solely from the spinal cord.**

## Each person is an image of God and one may not value one's life over another

The next three sources from Mishnah, Talmud, Rambam and contemporary responsa emphasize the following:

1. No doctor, judge or other may assign **comparative values** to human lives.
2. The legal presumptive life status of a moribund, gosses, person is: **Alive**.

### Mishnah Oholot 7:6

האשה שהיא מקשה לילד, מחתכין את הולד במעיה ומוציאין אותו אברים אברים, מפני שספיקה קודמין לספיקו. יצא רבו, אין נוגעין בו, שאין דוחין נפש מפני נפש: (אהלות ז:ו)

If a woman is having trouble giving birth, they cut up the child in her womb and brings it forth limb by limb, because her life comes before the life of [the child]. But if the greater part has come out, one may not touch it, **for one may not set aside one person's life for that of another**. (Mishnah Oholot 7:6)

Each person is an image of God and one may not value one's life over another

## Mishnah Torah (Rambam) Murders 1:9

אף זו מצוות לא תעשה שלא לחוס על נפש הרודף. לפיכך הורו חכמים שהעברה שהיא מקשה לילד מתר לחתך העבר במעיה בין בסם בין ביד מפני שהוא כרודף אחריה להרגה. ואם משהוציא ראשו אין נוגעין בו נשאין דוחין נפש מפני נפש וזהו טבעו של עולם: (משנה תורה, רוצח א:ט)

This, indeed, is one of the negative mitzvot - not to take pity on the life of a rodef. On this basis, our Sages ruled that when complications arise and a pregnant woman cannot give birth, it is permitted to abort the fetus in her womb, whether with a knife or with drugs. For the fetus is considered a rodef of its mother. If the head of the fetus emerges, it should not be touched, **because one life should not be sacrificed for another**. Although the mother may die, this is the nature of the world. (Mishnah Torah, Murder 1:9)

General note: **Infanticide** in the ancient (and in certain sectors of the modern) world was routinely practiced due to:

- a. Poverty (e.g. a need to continue nursing an older sibling).
- b. Female and general population control (post partum)
- c. Wet nursing industry.
- d. Removal of disabled or deformed births.

(see [Infanticide](#))

Each person is an image of God and one may not value one's life over another

## Talmud and Responsa (Gittin 28a)

מתני' המביא גט והניחו זקן או חולה נותן לה בחזקת שהוא קיים : גמ' אמר רבא לא שנו אלא זקן שלא הגיע לגבורות וחולה שרוב חולים לחיים אבל זקן שהגיע לגבורות וגוסס שרוב גוססין למיתה לא (גיטין כט.).

**MISHNA:** In the case of an agent who brings a bill of divorce to a woman, and when he had left the husband was elderly or sick, the agent gives her the bill of divorce based on the presumption that the husband is still alive (Gittin 28a)

GEMARA: Rava says:... But if the husband was moribund (gosses) ,then, as the majority of moribund people proceed to die, **No! Do not hand her the divorce.** (we presume that the husband lives, but we fear that he may die soon.)

ולדעת רבא אין חולק בדבר, שלא נחלקו תנאים אלא אם חוששים שמא ימות, שהרי אין לו חזקה שלא ימות, שבודאי ימות פעם אחת (ראה שו"ת נודע ביהודה קמא יו"ד נה), אבל לשמא מת אין חוששים (גמרא גיטין שם), שמעמידים אותו על חזקתו (רש"י שם ב ד"ה שמא), שכמו שהיה חי עד עתה עדיין חי הוא (שו"ת נודע ביהודה שם).  
([מיקרופדיה תלמודית](#))

Rava means that **you presume that a gosses is still alive**, but he cannot be relied upon to continue living. ([micropedia Talmudit](#))

**The issues that need to be decided under Jewish Law.**

1. Is irreversible dysfunction of the entire brain a valid criterion of death under Jewish Law?
  - a. If No, then, such a person is alive.
  - b. If Yes, the following issue must be decided:
  
2. Are the medical tests currently utilized in establishing such a condition valid indicators of its presence under Jewish Law?
  - a. Which Tests?
  - b. Are the tests being utilized in the patient's facility tests that qualify under Jewish law?

