

**Do YOU know** the difference between an MRI, a CT (CAT) or a PET scan?

Here are easy to understand terms from Web MD. YOU should be an **INFORMED** patient **BEFORE** you need to know.

An **MRI is a Magnetic resonance imaging (MRI)** is a test that uses a magnetic field and pulses of radio wave energy to make pictures of organs and structures inside the body. In many cases MRI gives different information about structures in the body than can be seen with an X-ray, ultrasound, or computed tomography (CT) scan. MRI also may show problems that cannot be seen with other imaging methods.

For an MRI test, the area of the body being studied is placed inside a special machine that contains a strong magnet. Pictures from an MRI scan are digital images that can be saved and stored on a computer for more study. The images also can be reviewed remotely, such as in a clinic or an operating room. In some cases, contrast dye (Common contrast material substances include iodine, barium, and gadolinium) may be used during the MRI scan to show certain structures more clearly. (YOU should ALWAYS

investigate and thoroughly research ALL dyes BEFORE you allow anyone to inject you. I have friends who are very sensitive and even allergic to some of these substances. I for one can NEVER submit to an MRI, as I am HIGHLY sensitive to magnets and CANNOT be near them let alone a room full of them.)

**When is an MRI recommended?**

**Head:** An MRI can look at the brain for tumors, an aneurysm, bleeding in the brain, nerve injury, and other problems, such as damage caused by a stroke.

MRI can also find problems of the eyes and optic nerves, and the ears and auditory nerves.

**Chest:** Heart valves and coronary blood vessels, lungs and breasts cancers. All blood vessels throughout the body.

- Bones & Joints
- All Organs
- Spine

**CT scan** A computed tomography (CT) scan uses X-rays to make detailed pictures of structures inside of the body. During the test, you will lie on a table that is attached to the CT scanner, which is a large *doughnut-shaped machine*.

**The CT scanner sends X-ray pulses through the body.** Each pulse lasts less than a second and takes a picture of a thin slice of the organ or area being studied. One part of the scanning machine can tilt to take pictures from different positions. The pictures are saved on a computer.

A CT scan can be used to study any body organ, such as the liver, pancreas, intestines, kidneys, adrenal glands, lungs, and heart. It also can study blood vessels, bones, and the spinal cord. An iodine dye (contrast material) is often used to make structures and organs easier to see on the CT pictures. The dye may be used to check blood flow, find tumors, and look for other

problems. Dye can be put in a vein (IV) in your arm, or you may drink the dye for some tests. CT pictures may be taken before and after the dye is used. (Sounds benign (safe) doesn't it? But how much X-ray do you want to be exposed to? And could you have a sensitivity to the dyes they might use? Do your home work and make sure any test is really necessary and what they expect to find. Or whether or not there is a less invasive method of deduction.)

**PET Positron emission tomography (PET)** is a test that uses a special type of

camera and a tracer (**radioactive chemical**) to look at organs in the body. The tracer usually is a special form of a substance (such as glucose) that collects in cells that are using a lot of energy, such as cancer cells.

During the test, the tracer liquid is put into a vein (intravenous, or IV) in your arm. The tracer moves through your body, where much of it collects in the specific organ or tissue. The tracer gives off tiny positively charged particles (positrons). The camera records the positrons and turns the recording into pictures on a computer.

PET scan pictures do not show as much detail as computed tomography (CT) scans or magnetic resonance imaging (MRI) because the pictures show only the location of the tracer. The PET picture may be matched with those from a CT scan to get more detailed information about where the tracer is located.

A PET scan is often used to evaluate cancer, check blood flow, or see how organs are working.

ALWAYS do your home work before you submit to any of these tests. Are there other means the doctor can use?

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## Blink when your brain needs a rest

Why do we spend roughly 10% of our waking hours with our eyes closed -- blinking far more often than is actually necessary to keep our eyeballs lubricated? Scientists have pried open the answer to this mystery, finding that the human brain uses that tiny moment of shut-eye to power down.

For more more information search for Melissa Healy at the LA TIMES.

The article closed with this truism. It's what every mother already knows.

Though the current study didn't examine the relationship between blinking and deception, others have: While telling a lie, liars have been found to blink less -- possibly because the act of deception requires rapt and uninterrupted attention to pull it off. In the seconds after telling a lie, however, the liar will blink far more frequently than a truth-teller. Perhaps the resulting downtime is necessary for the liar to consider whether the deceived person was buying the fib -- or whether it was worth telling in the first place.

What was the old school yard cry? "Liar, liar pants on fire" But at home mom always said, "Look me in the eye." Now we know why. Ha-ha -- enjoy!