**Name**:ABATAN PRINCESS TOLA

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 **Radioactive tracers**

are Isotopes that enter the body by injection or ingestion. They emit a signal, usually gamma rays. The medical provider then targets a particular organ or body part. The tracer provides detailed information that assists in making a diagnosis.

 **TYPES OF RADIOACTIVE TRACERS**

antimony-124, bromine-82, iodine-125, iodine-131, iridium-192, and scandium-46.

**APPLICATION OF RADIOACTIVE TRACERS IN MEDICINE**

 CT Scan

A major use of radioactive tracers involves computed X-ray tomography or CT scans. These scans constitute approximately 75 percent of medical procedures with tracers. The radioactive tracer produces gamma rays or single photons that a gamma camera detects.

Gallium-67 is the radioactive tracers used in a CT scan.

Emissions come from different angles and a computer uses them to produce an image. The treating physician orders a CT scan that targets a specific area of the body, like the neck or chest, or a specific organ, like the thyroid.

CT scans can detect bone and joint problems, like complex bone fractures and tumors. If you have a condition like cancer, heart disease, emphysema, or liver masses, CT scans can spot it or help doctors see any changes.

They show internal injuries and bleeding, such as those caused by a car accident.

For some CT scans you may need to have an injection of a special dye called intravenous contrast. ... Contrast is a clear fluid usually injected into a vein in the arm immediately before the scan.

 There are no known long-term adverse effects from such low-dose exposure which is why radioactive tracers are used in the first place.