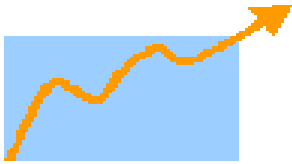


# SpaceMed Trendline

## Fusion Imaging Is Growing Fast



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### Background

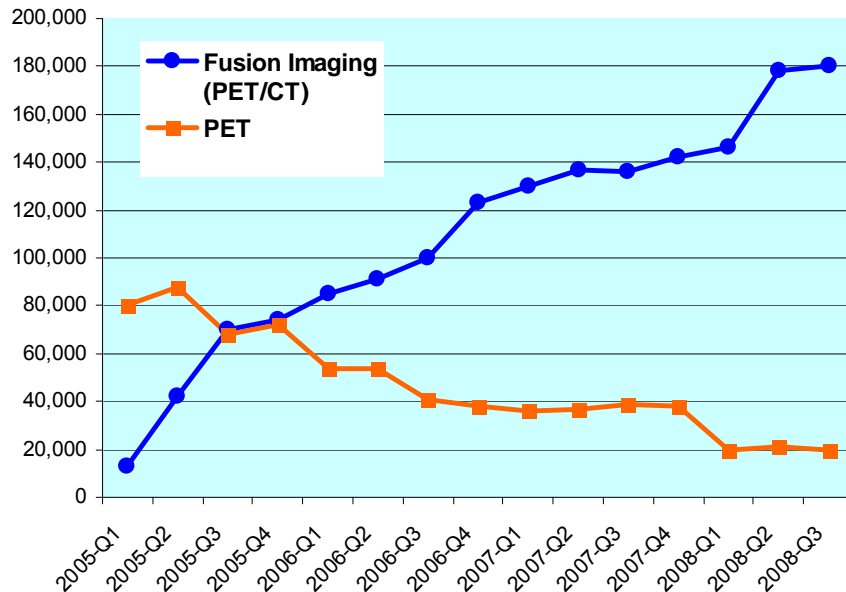
Imaging is one of the fastest changing technologies — from advances in x-ray film and cassettes to the introduction of computers and digital images — and it continues to reinvent its technology to improve patient care. Today, explosive growth is occurring in the area known as fusion imaging. This technology combines two independent imaging modalities — typically a procedure that demonstrates an organ's function with one that depicts the organ's anatomy to produce a diagnostically and clinically superior image.

Nuclear medicine procedures such as positron emission tomography (PET) and single photon emission computerized tomography (SPECT) are unparalleled in their ability to assess information about metabolic function. Computerized axial tomography (CT) and magnetic resonance (MR) imaging are superior at depicting anatomy. Historically, clinicians had to obtain physiological and anatomical information on separate machines and use special software to digitally superimpose the two images. Today, new hybrid equipment is capable of performing both types of examinations simultaneously by automatically merging the data to form a composite image. By uniting metabolic function with anatomic form, fusion imaging depicts the human body with a level of precision that was not achievable in the past.

### Trend in Fusion Imaging by the Numbers

Fusion imaging is diffusing very rapidly. As shown in the graph below, fusion imaging (PET/CT) was virtually unknown at the beginning of 2005 and conventional PET scans were the dominant technology. Within four years, PET scans had decreased from 80,000 to 20,000 procedures per quarter while fusion procedures had increased to nearly 180,000 procedures per quarter.

*Trend in Fusion Imaging (PET/CT) Versus Conventional PET Scans*



Source: Thomson Reuters.

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## Fusion Imaging Is Growing Fast

Continued

### Impact on Facility Planning

With the evolution of fusion imaging and other merging technologies, healthcare facilities must be planned with optimal flexibility in mind. Imaging facilities should be designed with a variety of small and large procedure rooms that can accommodate different pieces of diagnostic and therapeutic equipment over time. Furthermore, various modalities should be centralized in a single, flexible diagnostic center or imaging center that can accommodate changing workloads and equipment as some modalities grow and other become obsolete.

A PET/CT unit requires a large procedure room with an adjacent control room. For example, the Philips GEMINI TF Big Bore PET/CT system requires a procedure room of about 330 net square feet (NSF) with an adjacent control room at 100 NSF.

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