

ULTRASOUND USES IN MEDICINE

KIDNEY STONES

hard masses that can block the urinary tract

ultrasound turns them into sand-like particles

which then pass out the body in urine

PRE-NATAL SCANNING

ULTRASOUND V X-RAYS

ie: fluid in the womb and skin of the fetus

waves partially reflected at boundary between two media

the echoes analysed by a computer

to give an image of the fetus

Safety

unlike x-rays

ultrasound: non-ionising

considered safe

X-Rays can cause cancer

CT scans use X-Rays

but use an increased radiation dose

Image Quality

fuzzy images with ultrasound

difficult to diagnose illnesses

X-rays provide a clear image

of bones and metal

CT scans use greater doses of X-Rays

but give a much clearer image

easier to diagnose more complicated illnesses