

INCLINOMETERS FOR RADIOGRAPHIC IMAGING

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Technology description

Accurate interpretation of radiographic imaging studies requires knowledge of the patients angle of inclination at the time of image exposure. Conventional X-ray studies are presented in a two-dimensional format, effectively flattening the imaged body part or organ. The methods currently used for measuring the angle of inclination are crude and inconsistent, detecting only if a patient is lying flat or angled, but not the degree to which a patient may be angled. Such information is essentially ineffectual for the diagnostic radiologist and can result in interpretations that are misleading. A device which accurately reports the angle of the patient at the time of imaging would allow the relative effect of the gravitational force on the soft tissue structures, liquids and gaseous particles to be integrated into a more meaningful and informative interpretation of the radiographic image.

A prominent UCSF researcher and clinician has designed new inclinometers tailored for use in radiographic imaging. The designs range from an inexpensive, portable version, which could be carried around by a radiology technician performing routine x-ray examinations, to versions with additional features which could be either portable or incorporated directly into the imaging cassette.

Advantages

The vast majority of x-ray technicians carry around the currently available crude inclinometer. Moreover, the technicians often don't bother using them during imaging. The new designs can be used to develop a product that could become an imaging standard, demanded by virtually all x-ray technicians and radiology laboratories around the world.

Institution

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