

Title (en)

SYSTEMS AND METHODS FOR NONINVASIVE HEALTH MONITORING

Title (de)

SYSTEME UND VERFAHREN ZUR NICHTINVASIVEN ÜBERWACHUNG DES GESUNDHEITSZUSTANDES

Title (fr)

SYSTÈMES ET PROCÉDÉS DE SURVEILLANCE SANITAIRE NON INVASIVE

Publication

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Application

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Abstract (en)

[origin: WO2014113681A1] Implementations described and claimed herein provide systems and methods for accessible and reliable routine health monitoring and noninvasive detection and early diagnosis of diseases and conditions. In one implementation, a health monitoring device is provided. The health monitoring device includes a light source configured to emit photons into an optical waveguide, which internally reflects the photons. A compliant surface is compressible against the optical waveguide during a scan of tissue. The compression of the compliant surface against the optical waveguide scatters at least one of the photons into the tissue and/or back through the optical waveguide. An imaging array is configured to collect the at least one scattered photon, forming an image representing a hardness of the tissue relative to surrounding tissue.

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