

Non-Invasive Monitoring of Tissue Mechanical Properties

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Technology Summary

The mechanical properties of tissue can be affected by many diseases and injuries such as fibrosis and burns. Currently, the gold standard for measuring tissue mechanical properties is highly invasive and relies mainly on taking tissue biopsies. The main principal of measuring tissue mechanical properties is quantifying changes in tissue in response to a mechanical stimulus. Instead of using an external stimulus, our invention relies on using the blood pulse as the mechanical stimulus and quantifying the changes in the tissue by measuring the blood volume waveform obtained through a non-invasive technique such as photoplethysmography (PPG).

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