Osteoporosis causes 9 million annual fractures worldwide.

The majority of cases continue to go undiagnosed.

Currently osteoporosis screening is expensive and invasive.

There is a need for more ubiquitous osteoporosis detection.

We propose OsteoApp, a bone mass density (BMD) screening app.

Pilot Study Design

Experimental setup to validate smartphone tibial natural frequency measurement.

Preliminary Findings

Smartphones can measure tibial natural frequency.

Results suggest age-dependent frequency response.

Demographic factors are strongly predictive of BMD.

Bone size and tissue differences are confounding factors.

Future work should examine longitudinal BMD changes.

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