

fractal

a low cost device to detect and monitor fractures

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More than **66%** of the world doesn't have access to radiography.

80% of fractures occur in the developing world and often mean a **lifelong disability**.

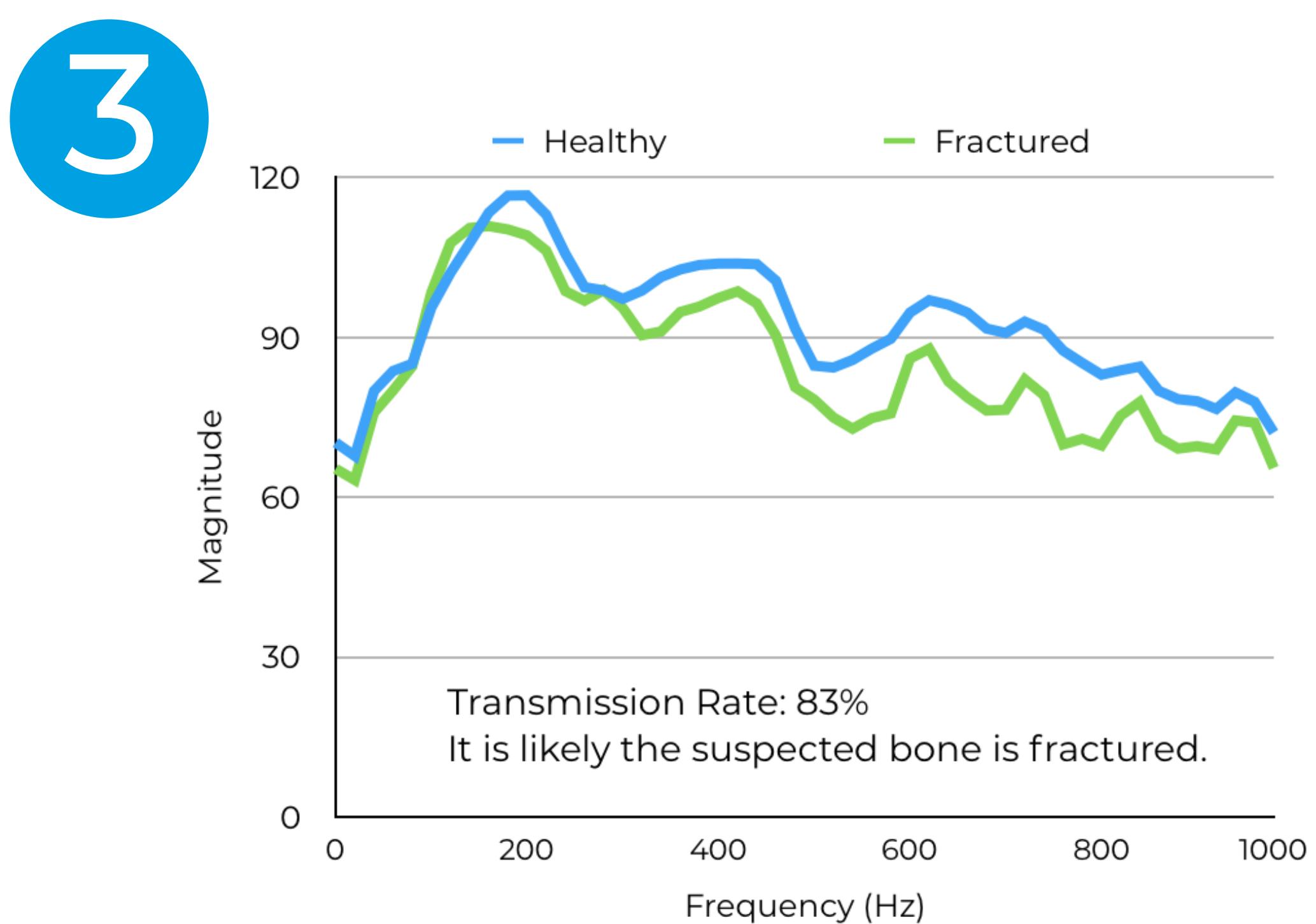
Patients are **3x** as likely to face complications due to delayed diagnoses (≥ 2 days), such as **cardiac arrest** or **1 year mortality**.

Bone auscultation can **quantify fractures** based on how much sound transfers through the bone.

Fractal is a diagnostic and monitoring tool for assessing fractures.



How It Works



To create a scan, place the actuator and sensor on opposite sides of the bone, and tap the button on the actuator.

Scans are sent from the sensor to a mobile app. Two scans are needed: one for the suspected fractured bone, and one for the contralateral, healthy bone

Once complete, the two scans are processed in Flask to generate a transmission rate. This value can be used to determine the existence and severity of fracture.