# Elderly Bone Fracture Risk Prediction and Prevention: Artificial intelligence (AI) and Non/Minimally – Invasive Solutions

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## Technology

Current bone quality assessments fail to distinguish trabecular bone loss, resulting in low accuracy in osteoporosis diagnosis. Furthermore, there is no effective solution for fracture prevention, leaving osteoporosis patients vulnerable to fractures. These fractures often lead to complications, lengthy recovery periods, and permanent reductions in quality of life. Our innovative products address these challenges by offering more accurate bone quality assessments and improved fracture risk prediction. Additionally, we introduce the first localized treatment specifically designed to prevent osteoporotic fractures, providing a proactive solution to improve patient outcomes and enhance long-term quality of life.

## Stage of Development

- Diagnostic System: Submitted to NMPA for approval
- Injection system and bone filler: Pre-clinical trials completed

## Key Advantages

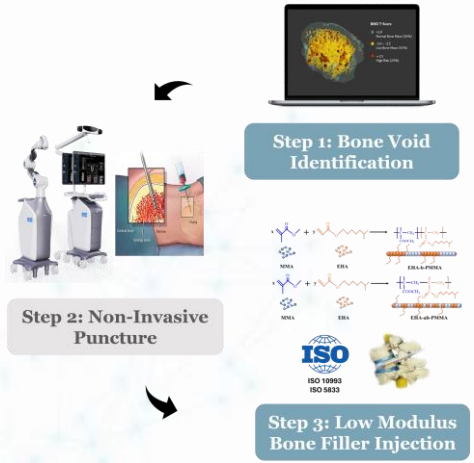
- MLD System – Automatically detects bone voids, assesses fracture risk with higher accuracy, and applies to any bone.
- Non-Invasive Injection System – Develops a robot-aided pedicle puncture and remote-controlled bone filler injection system, minimizing physician radiation exposure.
- Low-Modulus Bone Filler – Matches bone strength, reduces stress shielding, and mitigates complications like secondary fractures.

## Opportunities

New standard for osteoporosis diagnosis

First localized treatment for preventing osteoporotic fractures

Non/minimally – invasive surgical approach for fracture prevention




## Intellectual Property

CN Patent no.: ZL 2023 1 0120351.5
CN Patent no.: ZL 2023 1 0425719.9
CN Patent no.: ZL 2023 1 1198367.4

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