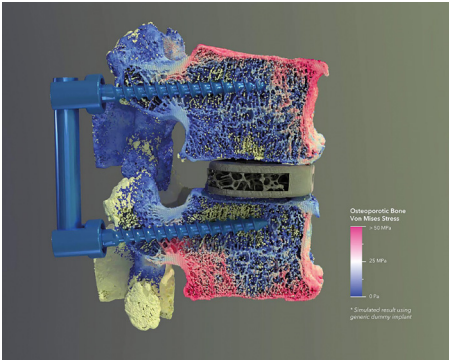


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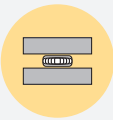
the revolutionary implant testing service
accurate. easy. fast.



A revolutionary implant testing service

The Alfonso implant testing service uses our proprietary particle-based bone tissue and foam models to get simulation results up to 10 times faster than through traditional testing labs, often within the same day. **Five of the top 10 implant** manufacturers by global revenue already rely on Alfonso's convenient and accurate results to save costs and speed up the design process.

SPINE



Simulated ASTM F2077

Compression and torsion tests of spinal spacers (Machined/3D-printed)



Simulated ASTM F2267

Subsidence tests of spinal spacers (Machined/3D-printed)



Simulated Cadaveric Spine Models

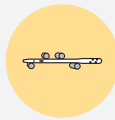
Validated injury models from our osteoporotic / healthy bone microCT library

TRAUMA & SPORTS MEDICINE



Simulated ASTM F543 A1- A4

Screw torsion, driving torque, pull-out, and self-tapping tests



Simulated ASTM F1264

Intramedullary nail bending and torsion test



Simulated Cadaveric Trauma Models

Validated injury models from our osteoporotic / healthy bone microCT library

JOINT RECONSTRUCTION



Press-Fit Tests

Insertion and removal in ASTM-standard orthopaedic foam (e.g., ASTM F2028 glenoid loosening)



Cemented Stem

Models using adherent bone cement



Simulated Cadaveric Joint Recon Models

Validated injury models from our osteoporotic / healthy bone microCT library



Groundbreaking technology

Alfonso's proprietary particle-based computer model of bone tissue is the world's first and only computational system capable of accurately simulating bone cracking and crushing phenomena - key predictors of implant failure. This makes it easy to filter out defective designs at an early stage, and focus on winners for final testing and regulatory submission.

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Spine

- **Simulated ASTM 2077**
Compression tests of spinal spacers (machined/3D-printed)
- Simulated ASTM 2267
Subsidence tests of spinal spacers (machined/3D-printed)
- Simulated Cadaveric Bone Models
Validated injury models in osteoporotic & healthy bone

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Ti-6Al-4V Alloy
Von Mises Stress
100 MPa
500 MPa
0 Pa

* Simulated result using generic dummy implant

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ASTM 15 PCF Foam
Von Mises Stress
100 MPa
25 MPa
0 Pa

* Simulated result using generic dummy implant

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Osteoporotic Bone
Von Mises Stress
100 MPa
25 MPa
0 Pa

* Simulated result using generic dummy implant

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Trauma & Sports Medicine

- **Simulated ASTM F543 A1 - A4**
Screw torsion, driving torque, pull-out, and self-tapping tests
- Simulated ASTM 1264
Intramedullary nail bending test
- Simulated Cadaveric Bone Models
Validated injury models in osteoporotic & healthy bone

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Osteoporotic Bone
Von Mises Stress
100 MPa
25 MPa
0 Pa

* Simulated result using generic dummy implant

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Joint Reconstruction

- **Tibial Tray Testing**
Insertion and removal in ASTM standard orthopedic foam
- Cemented Stem Models using adherent bone cement
- Simulated Cadaveric Bone Models
Validated injury models in osteoporotic & healthy bone

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ASTM 15 PCF Foam
Von Mises Stress
100 MPa
25 MPa
0 Pa

* Simulated result using generic dummy implant

Alfonso has not been approved for clinical use by the US Food and Drug Administration

