3D Motion Hip Analysis
Imagination meets visualization through 3D range-of-motion simulation

Joint problems are dynamic and multi-dimensional, while today’s static imaging leaves much to the imagination. See beyond and move forward with Zimmer Biomet’s 3-Dimensional (3D) motion hip analysis to convert your medical scans into interactive visualization reports.
The 3D motion hip analysis, powered by Clinical Graphics, constructs an interactive 3D bone model from computed tomography (CT) or magnetic resonance imaging (MRI) and conducts motion simulations to identify areas of bony intersection. The 3D motion hip analysis automatically calculates a suite of anatomic parameters giving full insight into the bony anatomy of the joint.

Each report contains:

**Interactive 3D motion simulation** allows 360° views of the joint to show impingement points when simulated range-of-motion (ROM) is limited.

**Bony intersection zones** that improve simulated ROM.
Bony anatomic parameter calculations provide you with a comprehensive overview of the joint geometry.

**Acetabulum**

**Acetabulum orientation**
- Sourcil angle: 7.0°

**Version**
- 7.0°
- Normal: 16°-26°
- Version of upper hemisphere*: 1.0°

* The version measurement in the right-most image is calculated halfway between the joint center and the roof of the acetabulum.

**Acetabulum coverage**
- Normal
- Posterior coverage: 37.3% (35%-43%)
- Anterior coverage: 39.8% (30%-38%)
- Total coverage: 77.1% (66%-81%)

**Center edge angle**
- 11.00h
- Superior (LCE) 12.00h
- 1.00h

Expected range for LCE between 22° and 33°.

**Femur**

**Alpha angles**
- Posterior 9.00h
- 10.00h
- 11.00h
- Superior 12.00h
- 1.00h
- 2.00h
- Anterior 3.00h

**Neck inclination**
- 12.00h
- 11.00h
- 10.00h
- 9.00h
- 8.00h
- 7.00h
- 6.00h
- 5.00h
- 4.00h
- 3.00h
- 2.00h
- 1.00h
- Superior 12.00h

**Neck version**
- 5.1°
- Normal: 0.4°-19.0°

Neck inclination: 127.8°
- Normal: 123.0°-135.4°
Getting Started
Our online service converts and upgrades your medical scans into interactive visualization reports in three easy steps.

1. **Create an account**
   through your Zimmer Biomet sales professional

2. **Securely upload CT or MRI scan**

*Patient sensitive information is removed from digital imaging and communication files during uploading to ensure patient privacy.*
**The 3D motion hip analysis utilizes a web based platform and does not require installation of software onto the user’s PC.**
References


