



The Anatomical Shoulder™ A true system approach

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Zimmer UK Ltd
The Courtyard, Lancaster Place
South Marston Park
Swindon SN3 4FP

Telephone 01793 584500
Fax 01793 584569

www.zimmer.co.uk



A true system approach to shoulder arthroplasty

What good sense it would make if a shoulder system was designed so that primary, fracture and reverse geometry implant options were integrated into one system.

With the family of *Anatomical Shoulder* prostheses this level of integration is now a reality.



Anatomical Introduction

Implant options – an integrated range

The *Anatomical Shoulder* system consists of three stem options, cemented, uncemented (press-fit) and fracture. All stems can be used with their standard head options or Inverse/Reverse geometry components.

Uniquely, both the standard stems and fracture stem can be revised to a reverse geometry construction in-situ without the need for stem removal.



Anatomical The complete shoulder system

Anatomical Shoulder™ Primary System

The Anatomical “ball head” arrangement provides a truly innovative solution to prosthetic head positioning, allowing adjustability in:

- offset (1)
- neck angle (2)
- and retortion (3)

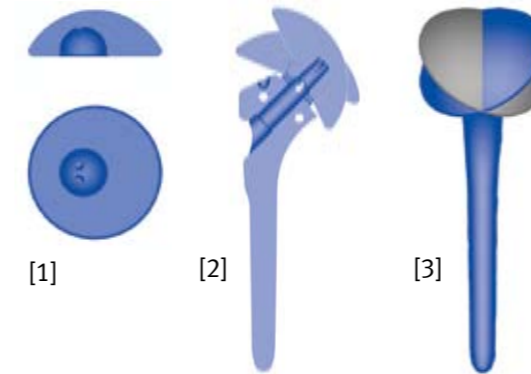
thereby re-establishing as closely as possible the patient’s own anatomy.

Cemented/Uncemented stem options

- The cemented stem is manufactured from cobalt chrome and is available in four diameter sizes and in standard and long stem lengths.
- The stem can be used with the standard range of heads or with the Inverse/Reverse components.
- The Anatomical Uncemented stem is available in five sizes and manufactured from forged titanium.
- The star shaped cross section and proximal fin provide stable fixation and rotational stability within the humeral shaft.



Head adjustments



“The *Anatomical Shoulder* has many of the advantages of a custom made prosthesis.”

Professor Christian Gerber



“In order to reconstruct the proximal humerus anatomically it is necessary to reproduce the size of the head and the direction it is facing.”

Professor Christian Gerber

Anatomical Shoulder™ Inverse/Reverse

- The *Anatomical Shoulder* Inverse/Reverse is built on the same stems as the primary and fracture prosthesis.
- The glenoid fixation is convex and designed to preserve bone. The anti-rotational fins of the peg aim to provide primary stability.
- Unique polyaxial screws allow positioning within an arc of 30 degrees.
- The Anatomical primary stem can be converted to Inverse/Reverse in-situ.
- Integrated instrumentation means that only one system need be used for primary and Inverse/Reverse options.
- A range of humeral tray depths and polyethylene tray heights provide multiple options for optimal tissue tensioning.



“The *Anatomical Shoulder* Inverse/Reverse design is based on the principles of kinematic balancing of the shoulder based on a model initiated by Grammont.”

Professor Christian Gerber



Convertible to Inverse/Reverse system without stem removal.

Such revisions may be necessary in the case of irreparable rotator cuff tear. This will greatly simplify and shorten revision surgery since the need to remove a well fixed stem is eliminated.

Anatomical Shoulder™ Fracture

A specialist stem for 3-and 4-part fractures

- The proximal volume of the prosthesis is optimised to restore the normal humeral anatomy.
- Special Fx spikes provide stable anchoring of the tuberosities to the stem, increasing primary stability.
- Special Fx suture holes allow for anatomical repositioning of the greater and lesser tuberosities below the head.
- Right and left head options with off-set adjustment.
- Convertible to Inverse/Reverse system without stem removal.
- Designed for cemented or cementless implantation.



“Suture holes are positioned at 90° to one another for anatomical re-positioning of the greater and lesser tuberosities.”

Professor Christian Gerber



Optimised positioning of suture holes



Professor Christian Gerber

Professor and Chairman
Department of Orthopaedics
Balgrist Clinic
University of Zurich



Anatomical Shoulder System
Surgical Technique



Anatomical Shoulder Inverse/
Reverse Surgical Technique



Anatomical Shoulder Fracture
Surgical Technique

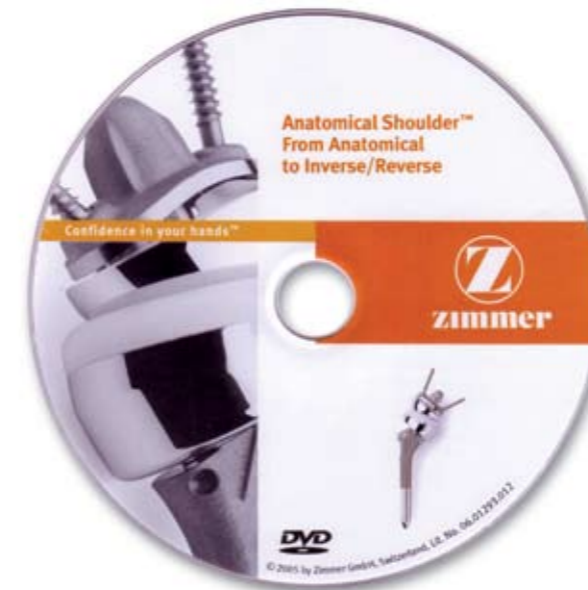
Anatomical Shoulder™ Designer Surgeons

Professor Jon J P Warner

Professor of Orthopaedic Surgery
Chief of Harvard Shoulder Service
Massachusetts General Hospital
Brigham Women's Hospital



Anatomical Shoulder™ More information



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01793 584529