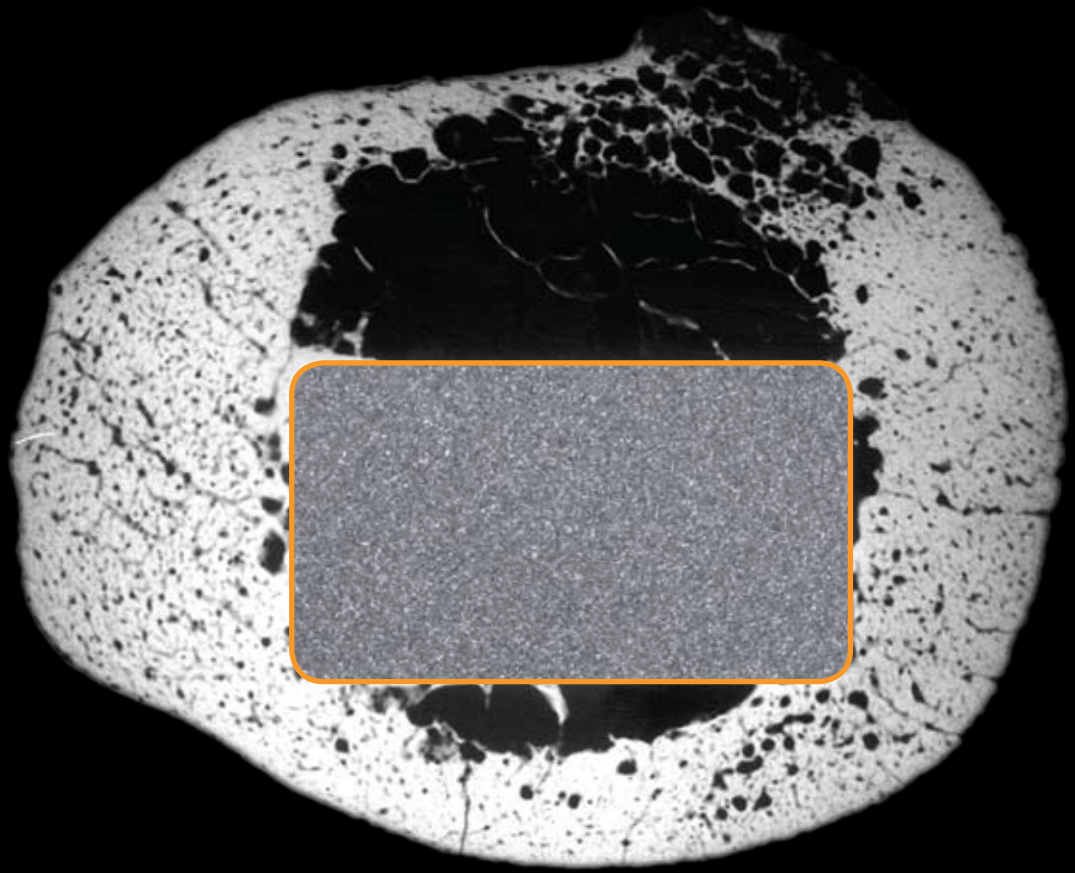


smith&nephew

SL-PLUS◇

Cementless Femoral Hip System

It's hip to be square

Clinical results

Immediate stability

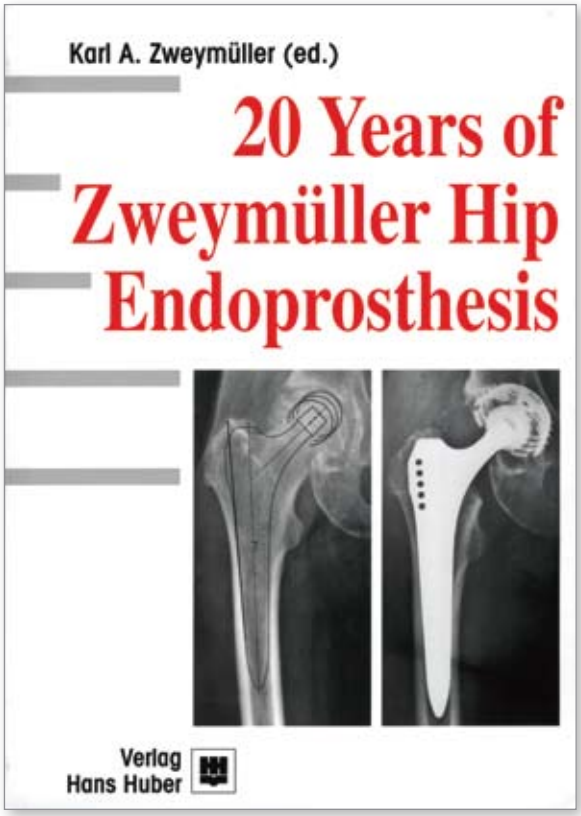
What does
square mean?

Safety and efficiency

Bone preservation

Clinical results

Our years of exclusive work with Professor Karl A. Zweymüller led to the development of the SL-PLUS® stem. This design reflects the sum of 20 years clinical experience with his revolutionary, biomechanically based anchoring concept.



With over half a million implantations world-wide, the Zwyemüller philosophy of implants has proven to have predictable and reproducible results.

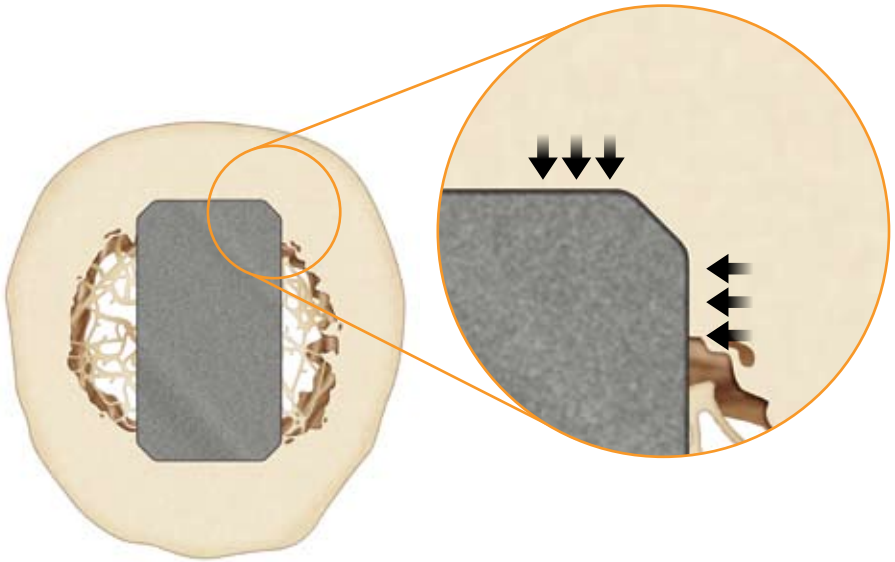
- 99% stem survivorship over 15 years[1]
- 99% over 10 years[2]
- 100% over 10 years[3]

The elderly bone studies below help demonstrate clinically that **surgeons can use cementless stem fixation for patients with hip fractures**.

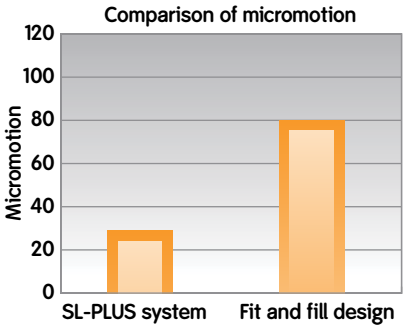
- 100% stem survivorship in patients over 80 years old over 6 years[4]
- Bony fixation after 3 years post-op in patients over 100 years old[5]

Immediate stability

Patients, young and old, want to get back to their normal activities. To return to their activity, the implant must be stable. Long-term stability can only be achieved once primary axial and rotational stability have been ensured.[6] The stability of the SL-PLUS◇ allows **immediate weight-bearing as tolerated** in any bone type. The design of the SL-PLUS stem provides the surgeon the confidence of a stable implant.



Four-point fixation increases the rotational control

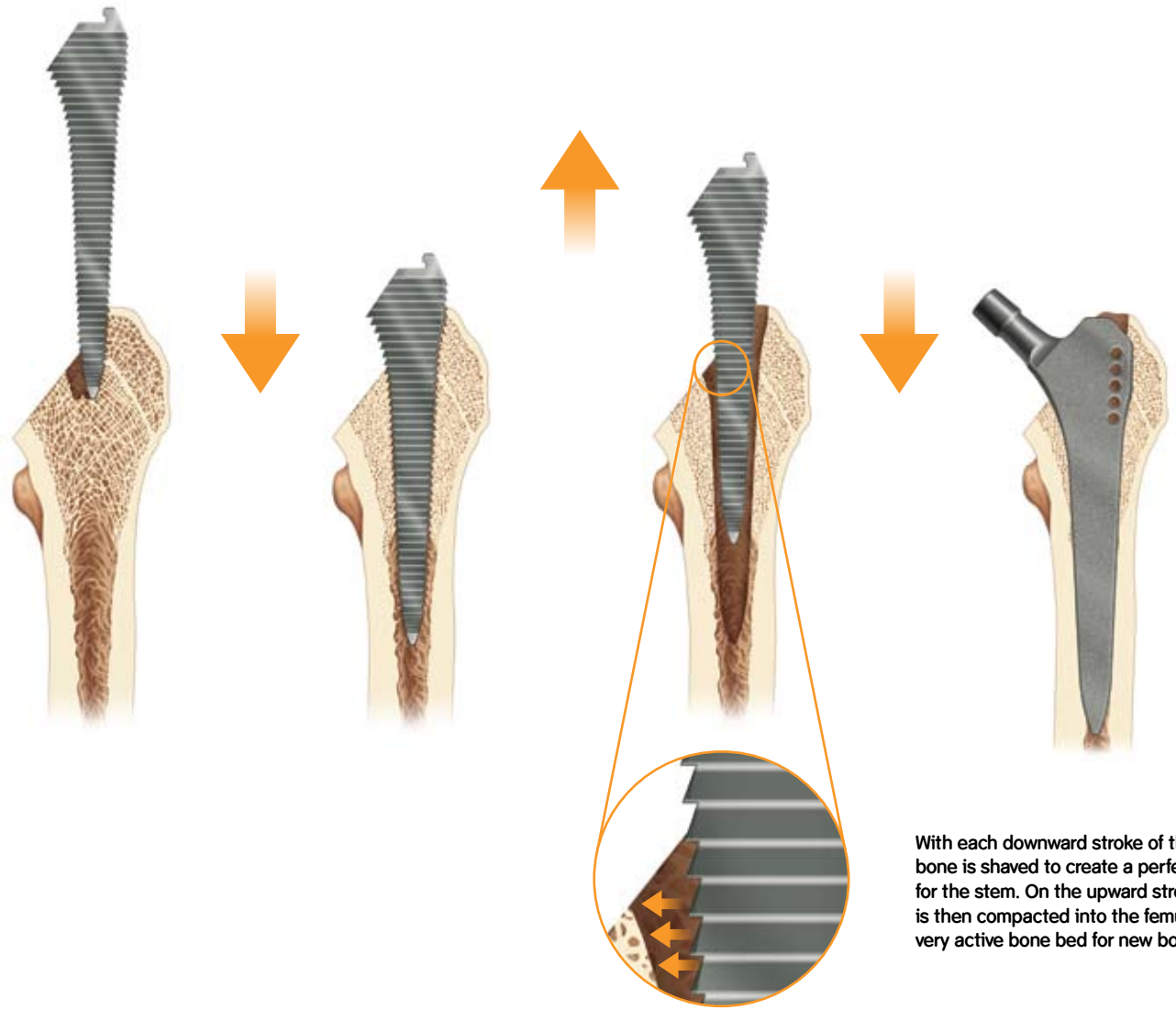


The rectangular cross section anchors the stem rotationally. Studies have shown that micromotion must be kept below 40 microns to ensure bone growth.[7]

Compared to oval 'fit and fill' designs, the SL-PLUS stem shows significantly higher rotational stability – keeping micromotion well below this critical threshold.[8]

Bone preservation

The unique design of the SL-PLUS® system produces **maximum stability** with minimal bone removal. No reaming of the femoral canal is performed. Instead, endosteal bone is **compacted, reducing bone loss**, effectively preparing a bed for the SL-PLUS stem to seat.



With each downward stroke of the broach, bone is shaved to create a perfect envelope for the stem. On the upward stroke, the bone is then compacted into the femur, creating a very active bone bed for new bone formation.

Safety and efficiency

Combining this simple technique with a **Woodpecker** pneumatic broaching device – supplied with each instrument set – can lead to **reduced surgical times without sacrificing expected results**.

The Woodpecker has been in use with over 3,000 systems since 1992. Due to the incremental forces exerted by the Woodpecker, femoral fractures are reduced, **making it ideal for all bone types.**[9]

Woodpecker advantages:

- Operating time reduced
- Fractures caused by excessive radial force avoided
  - Fast series of light taps instead of large blows with hammer
  - Ability to focus on rasp trajectory





Reduces femoral fracture through a series of light taps

Acetabular systems



TANDEM◇ Bipolar System

The TANDEM bipolar and unipolar systems restore joint stability by designs that simplify implantation and minimize concerns for wear.

With both unipolar and bipolar options, the TANDEM system offers double the simplicity of traditional partial hip systems – with just one easy-to-use set of instruments.

R3◇ Acetabular System

The SL-PLUS◇ hip system combined with the R3 Acetabular System provides an advanced hip replacement system with:

- Excellent primary stability
- Flexible instrumentation

General features







It's hip to be square

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