



Patient-Specific Instrumentation (PSI) for Shoulder Replacements

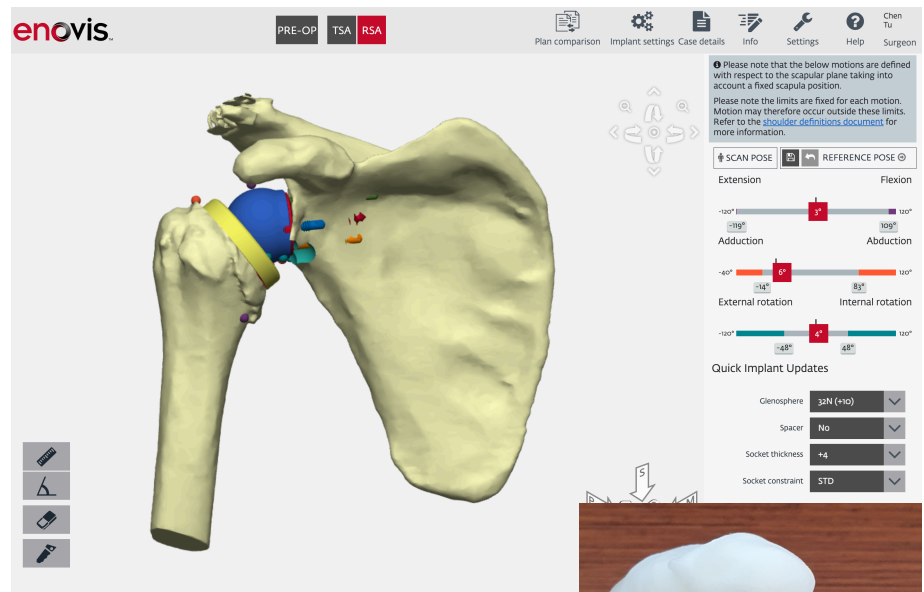
This handout is provided to you by Dr. Chen Tu and the team at Wakefield Orthopaedic Clinic. We are pleased to offer you comprehensive information about Patient-Specific Instrumentation (PSI) for Shoulder Replacements.

Understanding PSI for Shoulder Replacements

Patient-Specific Instrumentation (PSI) is an innovative approach to shoulder replacement surgery that involves the direct involvement of the patient in surgical planning. Using advanced imaging technology, including CT scans, and computer modelling software, you actively participate in the planning process to customise surgical guides and instruments according to your unique shoulder anatomy.

Benefits of PSI for Shoulder Replacements

- **Active Patient Involvement:** With PSI, you actively participate in the planning process, ensuring that the surgical approach is tailored to your specific anatomy and needs.
- **Enhanced Precision:** Custom-designed surgical guides ensure accurate alignment and placement of shoulder implant components.
- **Optimised Fit:** The guides are tailored to your specific anatomy, potentially improving the fit and stability of the shoulder implant.
- **Reduced Surgical Time:** PSI streamlines the surgical process by eliminating the need for intraoperative adjustments, leading to shorter operative times.





- **Potential for Improved Outcomes:** By optimising the surgical approach and implant placement, PSI may result in better functional outcomes and long-term success of the shoulder replacement.

The PSI Procedure

- **Preoperative CT Scan:** You will undergo a CT scan of your shoulder to generate detailed three-dimensional images of your anatomy.
- **Creation of 3D Models:** Using the CT scan data, computer models of your shoulder anatomy are created. Dr Chen Tu will plan your surgical procedure.
- **Custom Instrumentation Design:** Based on the 3D models and Dr Chen Tu's surgical plan, custom surgical guides and instruments are designed to assist you during the shoulder replacement surgery.
- **Surgical Execution:** During the surgery, you and Dr. Chen Tu will use the custom guides to accurately position and align the shoulder implant components according to your unique anatomy and preferences.
- **Postoperative Care:** Following surgery, you may receive your personalised guide (there are processes that need to occur to ensure the guide is safe to return to the patient).

Risks and Potential Complications

While PSI for shoulder replacements offers numerous potential benefits, it is important to understand that no surgical procedure is without risks. Risks associated with PSI may include complications such as infection, implant loosening, nerve injury, and failure to achieve the desired outcome. Dr. Chen Tu will discuss these risks with you in detail, and your active involvement in the planning process can help minimise these risks.

Contact Information

- **Telephone:** +61 8 8236 4168
- **Email:** admintu@woc.com.au

Conclusion

At Wakefield Orthopaedic Clinic, we are committed to providing you with the highest quality care and the latest advancements in orthopaedic surgery. If you have chosen to undergo a shoulder replacement surgery with Patient-Specific Instrumentation (PSI), rest assured that your active participation in the planning process ensures a customised surgical approach tailored to your unique anatomy and preferences. Dr. Chen Tu and our team will work closely with you to ensure a successful surgical outcome and a smooth recovery process.

If you have any further questions or concerns about PSI for shoulder replacements, please do not hesitate to contact us.