## Sacroiliac screw

Sacroiliac screws (SISs) has been used since Vidal et al. introduced its use in 1973. Since that, SIS has become a common technology in fixing pelvic posterior ring injuries.

SIS has made important progress in the treatment of posterior pelvic ring injury during the past 20 years. However, some clinical reports showed that conventional SIS may not universally result in sufficiently stable fixation.

Currently, SIS fixation represents the only minimally invasive technique to stabilize the posterior pelvic ring. For that reason, it is steadily gaining popularity, becoming one of the most commonly used techniques. Some indications for this technique include sacroiliac joint dislocations, sacral fractures, certain iliac crescent fractures and combinations of those injuries.

The sacrum, serving as the foundation of the spine, transmits the stress between spine and pelvis through sacroiliac joints.

Thus, the goal of surgical fixation is the reconstruction of the spine-pelvic-junction to allow early weight-bearing and to facilitate nursing care, particularly for multiple injured patients.

To overcome the biomechanical limitations faced by the single iliac screw technique, the dual iliac screw technique was developed.

Have been demonstrated that the dual iliac screw technique provides good clinical results for patients with a partial or total sacrectomy with no iliac screw failure, confirming the biomechanical advantage of dual over single iliac screw in restoring the stability of the lumbo-iliac fixation construct in vertical and rotational planes.

However, clinical practices caution that the dual iliac screw technique may increase bone stock loss, prominence of the instrumentation, and screw-rod connection difficulty as compared with the single iliac screw technique <sup>1)</sup>.

In sacroiliac screw fixation of unstable pelvic injuries in geriatric patients, poor bone quality often obscures important bony landmarks in fluoroscopic images.

Injection of a transhiatal epidural contrast agent improves fluoroscopic imaging of the sacral canal and of the neural foramina. Hence, this technique could be applied to help the surgeon identify anatomical landmarks during sacroiliac screw fixation in geriatric patients<sup>2)</sup>.

## 1)

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