InSpace[™] Balloon

A new technique in keyhole shoulder surgery involves using a balloon, inserted under local anaesthetic as a daycase procedure, to replace the rotator cuff tendon.

Tears in the rotator cuff are most common in people over the age of 40 and usually take the form of a tear in the tendon rather than the muscles themselves. These tears can be caused either by an accident or fall, or by wear and tear of tendon.

Treatment for rotator cuff tears ranges from anti-inflammatory medication, rest, and physical therapy to surgery.

Surgery can take the form of an arthroscopic operation to repair the tear in the rotator cuff. In massive or chronic tears which cannot otherwise be surgically repaired the only option until recently has been a major operation called a reverse total shoulder replacement. This operation repositions muscles to move the arm.

The new technique uses a biodegradable balloon filled with saline to form a cushion between the muscles of the shoulder joint and the bones in the area. It allows patients to forego the need for a reverse total shoulder replacement, at least in the short term and provide significant relief in elderly patients with severe shoulder pain.



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What is the procedure?

An arthroscopy is performed to assess to estimate the tendon condition and ensure it is an irreparable cuff tear.

• The InSpace[™] balloon comes in three sizes. The size of the subacromial space will determine which size balloon is used.

• The rolled-up balloon is positioned in the subacromial space and inflated with saline

• Once the balloon is inflated the joint is taken through full range of motion to ensure the balloon is in place and cannot be dislocated.

Does it work - what the science says so far

The technique is still in its infancy with initial tests being conducted over a relatively short three year period in a relatively small number of patients, and is not yet approved by NIHCE.

Initial results seem to suggest it is a good option for patients who do not yet want to commit to a reverse total shoulder replacement.

Professor Kochhar's evaluation

This technique has shown good early results but there is very limited scientific evidence to support its use so far. The technique is not as good as a rotator cuff repair and there are scientific papers to support the fact that good physiotherapy may be as effective in restoring range of motion without the need for major surgery.

For the elderly patient, with massive rotator cuff tears, however it presents a viable alternative to a reverse total shoulder replacement and provides significant relief from severe shoulder pain. The technique is significantly less invasive than a reverse total shoulder arthroplasty, and can be performed under local anaesthetic as a daycase procedure. Recovery time is also shorter with immobilization in a sling for one week post-operatively, compared to six weeks with reverse total shoulder arthroplasty.

