

# Reverse Total Shoulder Replacement

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## Who needs a Reverse Shoulder Replacement?

Reverse shoulder replacements are indicated in patients over the age of 70 that have significant shoulder pain due to arthritis along with rotator cuff tears that are not reparable. This problem has a specific name called cuff tear arthropathy. These patients typically have pain and extremely limited motion and strength in the affected shoulder. The reverse shoulder can also be used for re-do surgeries after failed total shoulder replacement, after fractures, and for tumors.

Arthritis is when the cartilage in a joint wears out. The cartilage is what makes joint motion smooth. When the cartilage wears out, the bone under the cartilage is exposed and it is the rubbing of bone

against bone that causes pain. Once the cartilage wears out, it does not re-grow.

The rotator cuff is the name given to the group of 4 tendons that surround the normal shoulder joint. The rotator cuff serves to stabilize the shoulder as well as provide motion.

The reverse shoulder replacement replaces the damaged cartilage surfaces and the design allows other muscles to provide movement where the damaged rotator cuff cannot. The mechanics of the shoulder replacement along with the deltoid muscle allows the once painful shoulder to function again with reduced pain.

## How well do Reverse Shoulder Replacements Work?

For many patients, the reverse shoulder replacement is their only option to have a pain-free and functional shoulder. The goal is to reduce pain and restore a degree of function.

Extensive research is being done on the reverse shoulder replacement. This research has shown that around 93% of patients are satisfied or very satisfied with their reverse shoulder replacement after at least 2 years after the surgery. Functional scores increase significantly after surgery as well.

For most patients who need a reverse shoulder replacement, their motion

improves from at or below shoulder level preoperatively to a little above head level post-operatively. This allows most patients to do most activities of daily living.

Complications and re-operation rates are higher with the reverse shoulder prosthesis. The complication and re-operation rates are around 20% with the reverse shoulder replacement. It is a technically difficult surgery often in patients with no other surgical option.

## How long do these replacements last?

Various studies indicate that 80-90% of total shoulder replacements are still functioning well without the need to re-do the surgery at about 10 years.

As our techniques and implants improve, it is expected that this time line will increase.

It is important to realize that changing the kinds of activities that one engages in on

a day-to-day basis may influence how long the implant lasts. For instance, heavy lifting and heavy manual labor may cause the implant to fail sooner.

The reverse shoulder replacement does the best in older individuals (older than 70) that live relatively sedentary lifestyles.

## Who should do my surgery?

The average orthopaedic surgeon does 2-3 shoulder replacement type procedures per year. Not all orthopaedic surgeons are equally trained in shoulder replacement surgery. Many shoulder surgeons are more skilled at shoulder scope procedures than they are at shoulder replacements.

Studies have shown that overall results in terms of mortality rates, length of hospital stay, and complications are higher for surgeons that do less than 5 shoulder replacements per year. Results are significantly better for surgeons and hospitals that do at least 5-10 shoulder

replacements per year. In other words, the results are better when the surgeons are more experienced in the specific area of shoulder replacement surgery.

Be sure that the surgeon that does your surgery is fellowship trained (has an additional year of advanced shoulder training) in advanced shoulder reconstruction/replacement surgery.

Dr. Kam has trained on more than 150 reverse shoulder replacements and is the only surgeon in Hawaii that has that degree of training with this new technique.

### References:

Wall B, Reverse Total Shoulder Arthroplasty: A Review of Results According to Etiology. JBJS Am, 2007; 89: 1476-1485.

Guery J, Reverse Total Shoulder Arthroplasty. JBJS Am, 2006;88A: 1742-1747.



*Pre-operative x-ray showing a poorly healed shoulder fracture. This patient had poor motion and disabling pain.'*



*Post-operative x-ray of the same patient after Dr. Kam performed a reverse shoulder replacement. This patient now has improved pain and motion..*