

## Patients: steer clear of these six orthopedic procedures

After the American Academy of Orthopaedic Surgeons (AAOS) released its [Choosing Wisely list](#), it was criticized for selecting items that are uncommonly used or have little effect on the income of its members. In [an editorial](#) in the *New England Journal of Medicine*, Dr. Nancy Morden and colleagues pointed out that the five services listed by this specialty group were particularly "low impact":

*The American Academy of Orthopaedic Surgeons named use of an over-the-counter supplement [glucosamine and chondroitin] as one of the top practices to question. It similarly listed two small durable-medical-equipment items and a rare, minor procedure (needle lavage for osteoarthritis of the knee). Strikingly, no major procedures — the source of orthopedic surgeons' revenue — appear on the list, though documented wide variation in elective knee replacement and arthroscopy among Medicare beneficiaries suggests that some surgeries might have been appropriate for inclusion.*

At the Lown Institute's 2015 [Road to RightCare Conference](#), a group of maverick orthopedic surgeons identified five other procedures that, in contrast to the AAOS list, are frequently performed at great expense in the U.S. but provide little or no benefit to patients.

1) **Vertebroplasty for spinal compression fractures** - in two randomized controlled trials comparing vertebroplasty to a sham procedure, there were [no differences in pain or quality of life between the intervention and control groups](#).

Risks of vertebroplasty include causing compression fractures in adjacent vertebrae, dural tears, osteomyelitis, cement migration, and radiculopathies requiring subsequent surgery.

2) **Rotator cuff repair for non-traumatic tears in older adults** - A randomized trial comparing physical therapy, physical therapy plus acromioplasty, and physical therapy plus acromioplasty and rotator cuff repair found [no differences between the control and surgery groups](#) after one year. About 600,000 Americans undergo rotator cuff surgery every year.

3) **Clavicle fracture plating in adolescents** - In adolescents with clavicle fractures that were displaced and shortened, there were [no differences between nonoperative management \(a sling for the affected arm\) and surgery](#) in appearance, range of motion, or participation in sports activity two years after the injury. However, 1 in 4 adolescents who underwent surgery required re-operation for surgical complications.

4) **Anterior cruciate ligament (ACL) reconstruction** - In young, active adults with acute ACL tears, a randomized trial comparing early (within 10 weeks of the injury) ACL reconstructive surgery plus physical rehabilitation to rehabilitation plus optional delayed reconstruction up to 2 years after the injury found similar outcomes between the groups. [61 percent of the optional reconstruction group did not require surgery](#). More than 100,000 ACL reconstructions are performed in the U.S. each year.

5) **Partial medial meniscectomy for adults with knee osteoarthritis and no mechanical symptoms** - A randomized trial found [no benefit of partial meniscectomy compared to sham surgery](#) in adults with degenerative meniscal tears and no osteoarthritis. A systematic review of 7 trials [came to the same conclusion](#). In adults with osteoarthritis, [surgery plus physical therapy was not more effective than physical therapy alone](#). Arthroscopic partial meniscectomy is the most commonly performed orthopedic procedure in the U.S., with 700,000 operations annually.

Finally, a 2015 randomized trial in *JAMA* suggested that another procedure whose use is increasing worldwide provides no benefits.

6) **Surgery for adults with displaced proximal humerus fractures** - Patients who underwent fracture fixation or humeral head replacement within 3 weeks of sustaining a displaced fracture of the proximal humerus had [no better outcomes than patients assigned to nonoperative management](#) (sling immobilization) after 2 years.

What accounts for the continued popularity of ineffective orthopedic procedures? Excessive magnetic resonance imaging (MRI) plays a role; immediate MRI is [rarely indicated for common musculoskeletal conditions](#), and may often provide deceptive or confusing results, such as identifying meniscal tears that are [unlikely to be the](#)

[cause of patients' chronic knee pain](#). Some primary care clinicians' lack of comfort with the orthopedic examination may lead to unnecessary referrals. Patients who perceive surgery to be a "quick fix" may not have the patience to stick with physical therapy and rehabilitation. And there is the inescapable reality that, necessary or not, these procedures pay well.