Rotator Cuff Tears
By Daniel Schwartz, MD/Shoulder & Elbow Surgeon

By age 60, over 50% of people experience a rotator cuff tear. While some are caused by traumatic events, most are degenerative tears. The larger the tear, the greater the impact to shoulder function. Rotator cuff tears do not heal on their own and tend to get larger over time. Some patients do not experience any pain initially, though many eventually will.

There are many reasons for tearing of one of the four muscles that form the rotator cuff including:

- Poor blood supply of the tendon
- High tensile forces
- Joint fluid inhibits healing
- Mechanical abrasion
- Repetitive activity
- Trauma

Non-operative Treatment
Rotator cuff tears typically respond well to non-operative treatment. Approximately 70% of people recover with non-operative management with a typical recovery time of six to 12 months.

Non-operative treatment may include:

- Anti-inflammatory medications
- Shoulder stretches
- Moist heat
- Cortisone injections
- Modified activities

Patients who don't respond to non-operative treatment may be candidates for surgery. The decision to consider surgery is based on the patient's activity level, their age, and their goals for future sports and activity. It's also important to consider risk factors including smoking, diabetes, large or recurrent tears, and the number of cortisone injections the patient has received.
**Surgical Treatment Options**
Rotator cuff repair is one of the most common shoulder surgeries I perform, and it’s typically performed arthroscopically on an outpatient basis. In this procedure, the tendon is reattached to the head of the humerus bone and, with proper rehabilitation, provides an opportunity for the tendon to heal. It can be a challenging surgery with considerable pain in the first four months of rehabilitation. Overall, it’s well tolerated by most patients. Patients with small or medium-sized tears often have a 90 to 95 percent chance of improvement.

**Rehabilitation**
A phased approach to rehabilitation is key for long-term recovery and optimum function. After a tear, the surrounding muscles often atrophy resulting in loss of strength and shoulder mobility. Physical therapy can help rebuild the muscle and restore shoulder motion.

**Phase 1 Post-Operative Rehab**
- Shoulder immobilization
- Pendulum exercises only
- Pool therapy

**Phase 2 Post-Operative Rehab**
- Stretching
- Sling wearing when away from home
- Slow return to use (golf putt, no swing)
- No lifting

**Phase 3 Post-Operative Rehab**
- More strenuous activities
- No strength training until 6 months after surgery

When to Refer:
- When patients have a shoulder injury or traumatic tear (example: a sudden pop with a loss of shoulder function). These patients respond well to surgery and should not be managed with non-operative treatment.

Curing Smokers are more than seven times more likely to have an aneurysm and have increased risk of expansion and rupture, making smoking cessation the most important intervention for any patient with AAA.

**Symptoms of AAA**
Most AAAs are asymptomatic and discovered during unrelated imaging. Occasionally, patients may feel a “pulses” in their abdomen. Rarely, large AAAs might cause symptoms due to compression of surrounding structures, distal embolization, or catastrophic ischemia due to AAA thrombosis. Patients with rapidly expanding or ruptured AAAs present with mild to severe abdominal or back pain, acute hypotension, and syncope.

**Screening Recommendations**
Transabdominal ultrasound is an ideal tool for screening and surveillance. In 2006, Medicare started covering one-time ultrasound screening for AAA for men aged 65 to 75 who have smoked more than 100 cigarettes in their lifetime and men or women with family history of AAA. The newly updated 2018 Society of Vascular Surgery guidelines recommend screening in men or women 65 to 75 years of age with any history of tobacco use. Screening in first-degree relatives aged 65 to 75 years is advocated. These screening recommendations also apply for patients older than 75 who are in good health.

**AAA Repair**
An elective AAA repair is intended to prevent emergency surgery from aortic rupture, which carries a 50% to 90% mortality risk. The risk of rupture increases dramatically with increasing aortic diameter. Elective repair is recommended for aneurysms larger than 5.4 cm in men and larger than 5.6 cm in women.

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**Major risk factors include:**
- Age, 55+ years
- Male gender
- Caucasian race
- Smoking
- Hypertension
- Hypercholesterolemia
- Peripheral vascular and coronary artery disease
- Family history of AAA

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<table>
<thead>
<tr>
<th>Aneurysm diameter</th>
<th>1-year estimated risk of rupture</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;3cm</td>
<td>~None</td>
<td>Follow up with primary care physician, 10-year US</td>
</tr>
<tr>
<td>3-4 cm</td>
<td>~None</td>
<td>Vascular surgery referral, 1-year US</td>
</tr>
<tr>
<td>4-5 cm</td>
<td>0.5-5 %</td>
<td>Vascular surgery referral, 1-year US</td>
</tr>
<tr>
<td>5-6 cm</td>
<td>3-15 %</td>
<td>Vascular surgery referral AAA repair in men &gt;5.4 cm, women &gt;5 cm</td>
</tr>
<tr>
<td>6-7 cm</td>
<td>10-20%</td>
<td>Expedited vascular surgery referral</td>
</tr>
<tr>
<td>&gt;8 cm</td>
<td>20-40%</td>
<td>Urgent vascular surgery referral</td>
</tr>
<tr>
<td></td>
<td>30-50%</td>
<td>Urgent vascular surgery referral</td>
</tr>
</tbody>
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**To order a screening ultrasound, refer a patient for a vascular surgery consultation, or discuss patient care, please contact Dr. Nevidomskyte’s office at 206.860.5581 or email her at daiva.nevidomskyte@polyclinic.com.**

**Annual Risk of Rupture of AAA and Treatment and Surveillance Recommendations**

**Caring for Patients with Abdominal Aortic Aneurysm**
By Daiva Nevidomskyte, MD, RPVI Vascular and Endovascular Surgeon

Dr. Schwartz welcomes consultations on specific patient cases. He sees patients at The Polyclinic Madison Center and The Polyclinic Northgate Plaza. Contact him at 206.860.5578.