

Treating arthritis of the elbow in those under 60 years

Guiding Principles from Dr. Morrey

1. Consider implications to salvage the primary intervention failure
2. Initial operation has the best chance for a good outcome- do not proceed with the idea that salvage with a TEA is always available; the TEA as salvage may be compromised
3. Do the right operation first. Avoid proposition you can always replace if ORIF fails as data show those with early ORIF failures do less well than those having an immediate replacement.

Diagnosis	Management	Key Points
Primary Osteoarthritis	<p>Arthroscopic Debridement:</p> <ol style="list-style-type: none"> 1. Assess status of the ulnar nerve-if symptomatic or if not symptomatic but pre op flexion <100 degrees, decompress in situ at beginning of case- ok if limited open. 2. Try to avoid removing the radial head as this increases stress on the UH joint. 3. If very stiff, visualization may be difficult. Use retractors. 	<ol style="list-style-type: none"> 1. Marginal osteophytes 2. Pain most likely from impingement 3. Impingement pain primarily from olecranon/fossa impingement 4. Flexion arc improves about 15 – 20 degrees from arthroscopic debridement. 5. Often it is unnecessary to add the morbidity and risk of a capsular release. 6. If marked limitation of motion and extensive osteophytes, then open debridement: column or ulno-humeral arthroplasty 7. TEA rarely, as salvage of debridement.
Inflammatory/Systemic	<p>Interposition/TEA</p> <ol style="list-style-type: none"> 1. < 60, consider arthroscopic debridement, especially if reasonable motion and evidence of an active synovitis. 2. With end stage patients <60, preference is interposition. 3. > 60 still prefer interposition if patient is very active, and elbow is main joint involved. 4. If interposition fails, TEA is a reliable salvage. 5. Primary TEA is treatment of choice if instability or malalignment is present, or there is limited experience with interposition 6. Exposure – extensile – consider subsequent TEA. 7. Leave triceps attachment and release LUCL, hinge open on MCL. 8. Beware of ulnar nerve impingement, may need to 	<ol style="list-style-type: none"> 1. Understand elbow relevance to independence. Requires understanding stage of disease and response to disease modifying agents. 2. Uniform joint narrowing, usually without gross deformity since DMARDS. 3. Stiffness is typical. Appreciate especially shoulder and hand function. 4. Understand if a hip or knee replacement is planned. If so try to avoid elbow surgery until after the lower extremity surgery. 5. If severe multiple joint involvement, question how much elbow reconstruction will benefit the patient on its own merits and in the context of additional procedures 6. Similar results for inflammatory and post trauma with approximately 80% satisfied at 8 years.

	<p>decompress; transpose if preop symptoms.</p> <ol style="list-style-type: none"> 9. Maintain subchondral bone of the humeral articulation to avoid resorption of softer metaphyseal bone. 10. Very carefully repair or reconstruct or reinforce the LUCL. 11. An articulating ex fix allows motion without placing shear stress on the graft; protects the healing ligament(s) and provides an opportunity to improve the F/E arc when under the anesthesia. 	
<p>Post-traumatic</p>	<p>Interposition/TEA</p> <ol style="list-style-type: none"> 1. TEA. Fix nothing, resect all fragments. 2. Leave the triceps attached to the olecranon. 3. Paraolecranon approach is preferred. 4. Understand soft tissue balance in those with more extensive bone loss. 5. If a preinjury arthritis flexion contracture was present, use splints post op to restore extension. 6. Physical therapy is usually of limited value in TEA. When used often focused on hand and/or shoulder. 	<ol style="list-style-type: none"> 1. Joint incongruity, non-union, stiffness. Stiffness is rarely painful unless secondary to hardware irritation or neurogenic. 2. Beware of pain at rest. If prior ORIF, always consider possible infection. 3. Painful arc with mechanical symptoms may benefit from arthroscopy, and motion may be improved with capsular excision 4. Young, <60-65, active, stiff, less than 10 degrees of angular deformity, not unstable – interposition 5. Other than relieving a pressure point or soft tissue irritation, hardware removal rarely improves motion or joint related pain. 6. If grossly unstable, TEA or fusion (rarely) in the very young laborer. If TEA is only viable option, discuss sedentary work in the future. Note – studies show 75% of patients don't remember or follow weight limitations. In patients over 70 TEA is the treatment of choice 7. Results do deteriorate with time. >90% at 5 years