

# Anatomic Arthroplasty in Young Active Patients - TSA

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## I (and/or my co-authors) have something to disclose.

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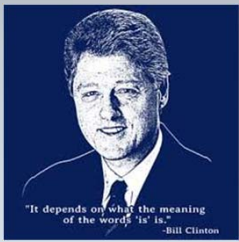
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## What is Young?

Represents a spectrum of chronological and physiologic age

- The two are not synonymous or mutually exclusive

Threshold in the literature for “young” around 50-55



“It depends on what the meaning of the words ‘is’ is.”  
-Bill Clinton

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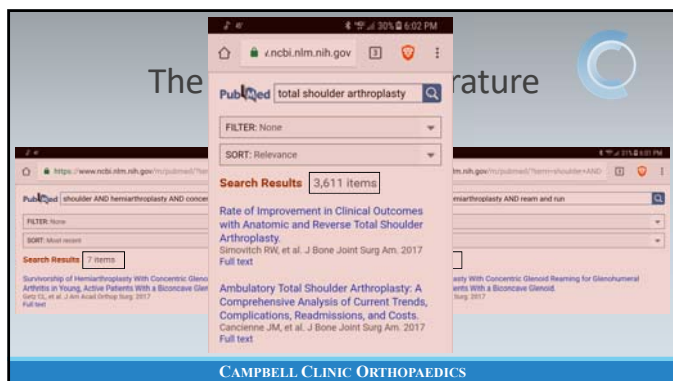
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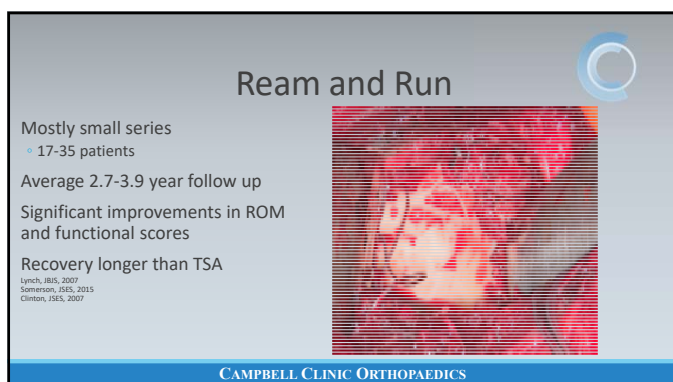
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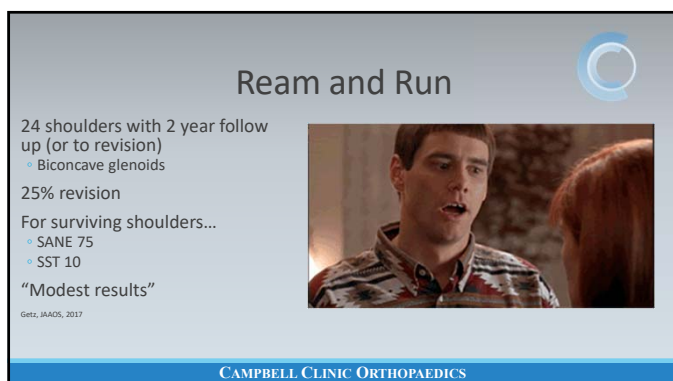
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## Ream and Run

Recent report of ~100 shoulders followed for average 10 years

- Outcomes maintained over time
- SST is only functional outcome

“This procedure appears to be best suited for an older male patient with reasonable preoperative shoulder function without prior shoulder surgery.”



Somerson, JBJS, 2017  
Gilmer, JBJS, 2012

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## The ream and run: not for every patient, every surgeon or every problem

“Patients considering the ream and run procedure should understand that this technique avoids the risks and limitations associated with a polyethylene glenoid component, but that it requires strong motivation to follow through on a rehabilitation course that may require many months. The outcome of this procedure depends on the body's regeneration of a new surface for the glenoid and requires rigorous adherence to a daily exercise program.”



Matsui, Int Orthop, 2015

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## Polyethylene Wear

45 anatomic TSA's followed for a minimum of 5 years

- Average ~6 years
- Average VAS 0.8
- Average ASES 84

**Radiolucencies**

- None – 35%
- Faceplate only – 13%
- Central post – 29%
- 2+ columns – 20%
- Failure/at risk – 2% (1)



Nelson, JSES, 2018 (in press)

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### Hemi vs TSA

Both stemmed hemi and TSA provide pain relief and functional return at short-intermediate term follow up in young patients

Cumulative evidence shows TSA to be superior with respect to pain relief, function, and rate of revision

Sayegh, Arthroscopy, 2015  
Barthel, JSES, 2012  
Bryant D, JBJS, 2005  
Radwin CS, JBJS, 2007  
Bishop FX, JBJS, 2005  
Collins DR, JBJS-A, 2004  
Sprerling JW, JBJS, 2004  
La Noy, JBJS, 2005



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### TSA

Civilian sporting population

- 61 TSA's at average 5 year follow up
- Return to upper extremity sport 84%
- No glenoid revisions
- Satisfaction 93%

Military population

- 26 TSA's at average 3.5 year follow up
- Complication rate 46%
- Reoperation rate 23%
- Medical discharge 38%

Garcia, AM J Sports Med, 2017  
Kucenozov, Am J Orthop, 2015



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### Hemi vs TSA

Self-reported activity levels

52 TSA vs 47 hemi

No differences in activity levels between groups

- TSA's had a lifting restriction
- Hemi's did not

Zarkadis, JSES, 2011



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## Conclusions



### Ream and Run

- Mainly one reporting institution but with good outcomes
- Others...modest
- Evidence overall is less robust

### TSA probably best option for bipolar degenerative conditions

- Reliable pain relief and return to activities and sport in civilians

If you give patients pain relief, they will do whatever they want, regardless of what you tell them

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## Thank You



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