



## Surgeon Interview on Current Trends in THA

Charles Bryant\*, Louis Keppler\*, John Keggi\*, Corey Ponder\*

### Surgeon Biographical Information:

#### Charles Bryant, MD

Board-certified orthopedic surgeon specializing in total hip and knee arthroplasty currently practicing in Oklahoma City, OK.

*Residency:*

Oklahoma University's Health Sciences Center

*Medical School:*

University of Oklahoma College of Medicine



#### Corey Ponder, MD

Specialist in joint replacements of the hip and knee, adult reconstructive surgery, and arthritis currently practicing in Edmond, OK.

*Fellowship:*

Total joint replacements at the University of Utah in Salt Lake City

*Residency:*

Oklahoma University's Health Sciences Center

*Medical School:*

University of Oklahoma College of Medicine



#### Louis Keppler, MD

Board-certified orthopedic surgeon specializing in sports medicine, spinal reconstructive surgery, scoliosis surgery and joint replacement currently practicing in Cleveland, OH.

*Fellowship:*

Pediatric Orthopedics and Spinal Surgery at Texas Scottish Rite Hospital in Dallas, TX

*Residency:*

Cleveland Clinic

*Medical School:*

St. Louis University School of Medicine



#### John Keggi, MD

Specializes in surgeries for hip replacement, knee replacement, revision of failed replacements, hip and knee arthroscopy, orthopaedic surgery and adult fracture care, currently practicing in Waterbury and Hartford, CT.

*Fellowship:*

Adult Hip and Knee Reconstruction at Waterbury Hospital in Waterbury, Ct. and Pediatric Orthopedics at Newington Children's Hospital in Newington, CT.

*Residency:*

Yale-New Haven Hospital and Yale University School of Medicine Department of Orthopedics and Rehabilitation

*Medical School:*

University of Wisconsin Medical School, Madison, WI



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Non-Profit Founded in 1971  
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\* Members of the JISRF TSI™ Study Group

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## Surgeon Interview:

### What approach do you use for your primary THA's?

*Bryant:*  
Direct Anterior Approach

*Ponder:*  
The majority of my primary THA's are performed through the posterior approach. I also do the anterior approach and my split is probably 80% posterior 20% anterior. The biggest factor for me in selecting a patient for the anterior approach is that they are not obese. I also don't recommend it for large, muscular males. I discuss with the patient the pros and cons of both approaches and if they want the anterior approach I'll do it but if they don't see the need for it, I'll do the posterior approach.

*Keppler:*  
Posterior Approach

*Keggi:*  
Direct Anterior Approach

### What do you consider to be the "gold standard" today for a bearing surface in THA?

*Bryant:*  
Cobalt chrome on highly cross-linked polyethylene or perhaps ceramic heads on highly cross-linked polyethylene. I heard a bit of discussion at AAOS this year that there's minimal difference that they can prove between cobalt chrome and ceramic heads against highly cross-linked polyethylene. Still, I tend to use ceramic heads with my younger patients because even a little difference over time matters to me.

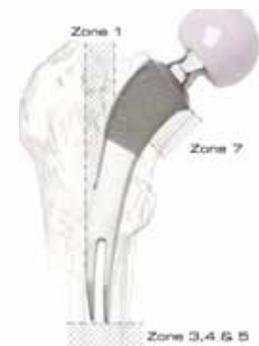
*Ponder:*  
For me the gold standard is ceramic on highly cross-linked polyethylene.

*Keppler:*  
The gold standard right now for the young patient is ceramic on cross-linked polyethylene.

*Keggi:*  
Ceramic on ceramic is the best surface. No surface is perfect, ceramic has a certain low instance of fracture, we have seen squeaking, and like all surfaces it is sensitive to cup positioning or component positioning in general. Metal-on-metal is still a good surface but has its difficulties. It has probably a 1% risk of adverse soft tissue reaction. I think metal-on-poly or ceramic-on-poly still has greater wear than any of the hard surfaces. So on balance, I think ceramic-on-ceramic is the best surface. If someone is a candidate for resurfacing and they understand all of the pros and cons of resurfacing, and they are under 55, I will go with resurfacing which is by definition metal-on-metal right now. Any other patient under the age of 65 gets a ceramic-on-ceramic bearing. Patients over the age of 65 will either get a ceramic head on cross-linked poly or a metal head on cross-linked poly.

### When do you believe it is appropriate to use a 36 or 40 mm head?

*Bryant:*  
I think for me and a large population of orthopedic surgeons right now, 36 is probably the standard assuming the acetabular component is large enough to accept it without having a poly insert that is too thin. If I had a choice 32 or 36, with the fact that they are aware at some point they may be a candidate for a revision. Younger and younger patients are becoming patients for hip arthroplasty because they are active and want to remain active. The ARC fits into patients who want a variety of surfaces and are possibly contraindicated into resurfacing for a number of reasons. The ARC fills a big niche of patients that are young and need to save bone for later use, and want a stable prosthesis.



**We have purposely designed the ARC system to give you numerous neck and head options. Are they truly clinically useful to you or do you think they add complexity to the system?**

*Bryant:*

I definitely think they are clinically useful. I am not as certain whether anteversion of the neck will make as big of a difference, however, I definitely like having the option of the varus neck. Having the ability to help manage the offset better is definitely a useful thing as far as I'm concerned.

*Ponder:*

Are they useful? Yes. Do they add complexity? No. The modularity has really allowed me to fine tune the offset and length to where I can really match the patient's anatomy to achieve stability. The options that are available to you are actually not that complex compared to some other modular systems on the market.

*Keppler:*

I think they are useful. In most cases I use a neutral neck but if I need to increase my offset but don't want to lengthen the hip, then having the ability to place it in varus is valuable. If the patient has a valgus proximal alignment then being able to reproduce that so I don't produce too much offset and give them some trochanter pain is valuable.

*Keggi:*

I think they are useful. I think that modular systems which we have always favored really give that flexibility that allows you to have good stability and good restoration of limb length in the standard length stems. Now with the ARC, I think it's critical especially as we want to avoid impingement either as a factor contributing to stability or as a factor to avoid the failure of hard on hard bearings.

**What do you believe is the biggest advantage of the ARC stem?**

*Bryant:*

I think ease of insertion is a real key. It's certainly beneficial for those of us who are doing the anterior approach and can make a real difference in how

much bone and tissue you have to remove in order to insert it.

*Ponder:*

The biggest advantage is being able to do a total hip that is both bone conserving and soft tissue conserving that I can put in the majority of my patients.

*Keppler:*

Sparing the bone of the greater trochanter is a big advantage. Not disturbing the abductor musculatures is very important to me.

*Keggi:*

The fact that it saves a large portion of neck and is most likely easily revisable to a standard stem is a big advantage for me. I think it gives the same bone conserving benefits as a resurfacing but with a much more standard approach, less soft tissue dissection and good revision options later.

**What advice would you give to a surgeon new to the ARC?**

*Bryant:*

Go to a seminar and watch someone else do it first, just as you should do with any new prosthesis. I don't consider the ARC to be more complex than any other primary hip system, but there are some technique tricks and pearls that are handy to know. I think the safest way to take on any new system is to be instructed by someone who has already been doing it.

*Ponder:*

The biggest piece of advice that I would give is anytime you adopt a new technology into your practice is not to try to change too many things at the same time. If you're a posterior approach guy you don't want to try to start using the ARC doing anterior approaches. So don't change your approach with your system. Get comfortable with the device first in the approach that you're most comfortable with and then try to learn the new approach after that.



***Keppler:***

My biggest advice to them would be to make sure you have excellent stability at the end of the procedure and you don't have any impingement. The procedure is very similar to a standard length stem but it is just as important to perform a full range of motion assessment to check for impingement.

***Keggi:***

I think that it is important to come to the lab. There are some small but important differences. A lab and a site visit can certainly be helpful. I think the key part for the anterior approach is performing a femoral release first. Also, dislocation of the hip first and freeing up the capsular adhesions and ligament are really helpful from a technical standpoint. From a practice standpoint and a surgeon development standpoint I think it's really a good device to incorporate into one's practice because there are greater numbers of young patients and this will really be a boom to one's practice.

**Commentary**

By  
Timothy McTighe  
Executive Director, JISRF



Short curved neck sparing stems are not a new concept in Europe however, it is very new in the United States. The historical neck sparing stems experience in the States has been limited to conventional length stems ( Freeman, Townley, Whiteside). JISRF has been lecturing and writing about this short curved design concept for the past four years and we find many surgeons being attracted to the overall design philosophy. So much so, we have created an International Tissue Sparing Implant (TSI™) Study Group. [www.jisrf.org](http://www.jisrf.org)

We invite all interested parties to view our study group and to contact me if you wish to become a member.

## Tissue Sparing Total Hip Arthroplasty Study Group



The Joint Implant Surgery and Research Foundation has a long history in the study of THA. It began back in 1971 when Professor Charles O. Bechtol, M.D. established JISRF as a nonprofit scientific and educational foundation.

JISRF continues this study with the formation of a new study group of international surgeons and scientists. Findings will be posted on the foundation's web site at [www.jisrf.org](http://www.jisrf.org).

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Surgeons interested in learning more contact the Executive Director at [www.JISRF.org](http://www.JISRF.org)

This stem might appear to be a radical design however, it is very incremental in its design features. I would encourage all interested parties to review the individual features and the potential benefits provided by these features.

This then allows one to start to consider whether this stem might be a valuable tool in their treatment modality for THA.

Modern day total hip designs provide good to excellent results in the high 90 percentile at 15-17 year results. The short curved neck sparing style stems can provide for conserving more tissue (hard & soft) so if or when a revision is called for there is more infrastructure to work with. We must always be thinking about the next step and how best to prepare for that step.

I believe in Professor Pipino and Freeman's life long work and believe we are on the path to making their contributions main stream in the field of total hip arthroplasty.