

Melanie Cole: Welcome to the podcast series from the specialists dependent. I'm Melanie Cole and I invite you to listen. As we discuss hip labral tears at the Penn hip preservation center. Joining me is Dr. Chris Anthony. He's a fellowship trained hip preservation specialist and serves as associate director of hip preservation as well as a joint preservation, resurfacing and replacement surgeon at Penn orthopedics, Dr. Anthony, it's a pleasure to have you join us today. And to begin with you, wouldn't happen to have firsthand experience with the threat of hip labral tears from say a former occupation now, would you?

Dr. Christopher Anthony: Yeah, actually I do, Melanie. So I never had hip surgery, but I was a competitive athlete for some time. I played Division 1 football as well as professional football for a handful of years and certainly had experience with a lot of orthopedic surgery during that time and saw a lot of my teammates actually deal with some hip issues. So my passion and interest for the hip does come from my playing days.

Melanie Cole: That's so interesting. Thank you for sharing that. So tell other providers a little bit about hip labral tears, how common they are and how they happen.

Dr. Christopher Anthony: Sure. Labral tears are very common. We've certainly seen an increase in diagnosis of labral tears in the past several decades. A lot of this has been with increased utilization of imaging techniques, such as MRI. The thing I like to tell patients and tell other surgeons and healthcare providers that I work with is there's always a reason for a labral tear. And that's really what we try and get to the bottom of at the Penn Hip Preservation Center, is why is the labrum torn? Labrums just don't tear for no reason at all. There's almost always a bony reason and usually that bony reason is either hip dysplasia or hip impingement. So we try and do a really thorough job of diagnosing the bony problem and then formulating a treatment plan for the patient.

Melanie Cole: Can you expand a little bit, Dr. Anthony, on how dysplasia and impingement contribute to these labral injuries?

Dr. Christopher Anthony: Sure. So there are two separate entities. Sometimes patients have both of them together at the same time. But if we start with dysplasia, you can think of hip dysplasia as a problem of hip instability. So the hip is unstable, the acetabulum or the hip socket is shallow. And you can think of the femoral head inside of that socket kind of sliding around all of the time.

It's a micro motion. It's not as if it's sliding out of the joint all the time, but it is unstable. And so what can happen is that can cause the labrum to tear. So if we think about it in the context of a labral tear, the hip's unstable and then the labrum or the soft tissue ring around the acetabulum, around the socket can tear as it tries to constrain the hip inside the joint. So that's hip dysplasia. Again, a problem of hip instability.

Hip impingement's different. Hip impingement is extra bone in the hip. And so now, that bone is impinging on other bone. And what it often does is those two areas of impingement pinch the labrum in between and then cause the labrum to tear. So it's a little different mechanism of tearing, but still at the end of the day, it's a very common cause of labral tears, this extra bone in the hip or hip impingement. And that bone can grow on both the femoral side, on the femoral head and neck, that's called a CAM lesion. Or it can grow on the acetabulum and that's called a pincer lesion or sometimes something called acetabular retroversion where the hip socket is actually facing towards the back of the pelvis instead of towards the front where it should normally face.

Melanie Cole: As we're talking, Dr. Anthony, about these tears and some are obviously the result of athletics and some are associated with age, are there particular sports that have more of an impact to a player's hip in terms of those kinds of injuries? And do they have better outcomes from this procedure because of certain athletic training abilities?

Dr. Christopher Anthony: Yeah, that's a really good question. So in general, in the setting of hip impingement, we tend to see high hip flexion athletics causing issue. So again, hip impingement is a problem of extra bone in the hip. And that bone impinges when the hip is flexed up and internally rotated or brought across midline, so adducted. And so we think of high hip flexion sports like hockey, sprinting. We get a lot of athletes who run track or are highly competitive and active runners. Other sports such as football is also common. We certainly get some baseball players with some of the twisting high hip flexion activities that they do, but in general, it's a problem of high hip flexion when you think of impingement.

Dysplasia is a little different. Dysplasia tends to run more commonly in women, in female patients. And it really cuts across all sporting activities, but we end up treating similar athletic types with dysplasia. We do tend to get a few more dancers and patients who are doing those sorts of activities in the dysplasia setting. But really, both entities cut across all sports, but high hip flexion activities would be one thing I would point out that tends to pull out these pathologies for patients, tends to make them recognizable.

As far as how will patients do depending on the activities that they perform, when we do these procedures or when we treat patients non-operatively, our goal is to get them back to fully functioning high-level activities and all of the surgeries that we do at the preservation center, we have that in mind as our end goal. And certainly, we have high percentage of patients, both our own patients, but also we know this from national and international data who are able to return to those sorts of sporting activities or just their activities of daily living without pain and discomfort after we help patients out either surgically or non-surgically.

Melanie Cole: Thank you for that. So how are labral tears treated at the Penn Hip Preservation Center? Tell us what makes a surgery a hip preservation procedure as opposed to a simple repair? And Tell us a little bit about what you're doing at the Penn Hip Preservation Center.

Dr. Christopher Anthony: Sure. So what I tell every the patient is there's really two issues. Number one are your current symptoms. So the pain and discomfort that patients are having on a daily or weekly level or with their sport activity. So that's one issue. The second issue is the long-term health of the hip. So our goal at the preservation center is to take care of both of those problems. We want to create a non-operative or sometimes an operative plan that would allow patients to have better daily comfort and pain levels in their hip. So the ultimate goal is to have no pain or discomfort in the hip, and then also to try and prolong that life of the hip for many decades, hopefully forever for that patient.

So in terms of what we do, we always start with non-operative measures first. We try physical therapy. Sometimes we do hip injections for patients both in a diagnostic and therapeutic setting. When it comes to surgery, there's multiple things that we do for patients. We do fix labral tears, but as we discussed earlier, the point of our surgeries is never just to fix the labral tear. The ultimate point is to fix the bony problem inside the hip.

So in the setting of hip dysplasia, what we will do is something called a periacetabular osteotomy or a PAO, that's where we go and create a more stable hip socket by realigning the architecture of the hip. So we cut the bone in multiple places and then we put the acetabulum or the hip socket in a better, more appropriate position and fix it in place that heals over time and then patients have a stable hip that our data and both national international data would say helps with immediate short-term symptoms in the hip, so it helps the patient's hip to feel better. And then it also preserves the hip over a lifetime or gives the hip has a better chance of going a lifetime or many, many decades

without osteoarthritis. So it accomplishes those two goals that we discussed earlier.

Hip impingement, what we will do is we will go in and shave out that extra bone that's in the hip, that's causing the labral tear. So we go in and shave out that bone. Sometimes in the setting of acetabular retroversion, also a problem of hip impingement, we will change the orientation of the hip socket with an anteverting periacetabular osteotomy, where we make the hip socket face towards the front. And then we also repair the labrum in those settings. So again, we repair the labrum in all these instances. But really, there's always a reason for a labral tear. We make sure we understand that reason and we correct that reason so that the labrum doesn't have a chance of re-tearing again

Melanie Cole: Fascinating. Such great information. As we wrap up, when do you feel it's important for other providers to refer for hip preservation evaluation and treatment at the Penn Orthopedic Hip Preservation Center?

Dr. Christopher Anthony: So what we know from long-term outcome studies, so this is, you know, at least 10, if not 20 to 30 year outcome studies, is hip preservation is most successful the better the cartilage health and quality. So that tends to correlate with younger age. So we do think that every year kind of matters for patients when it comes to cartilage health, especially as patients get into their 20s and 30s and certainly their 40s, their young 40s.

Every year and certainly every decade matters for patients in terms of treating these hip pathologies. So we do like to think that getting patients over to see a group like ours, that's trained in these sorts of techniques as early as possible is important. The earlier we can get to patients and help them, again certainly trying non-surgical measures first, but if we need surgical measures, the better patients will do in the long-term.

Melanie Cole: Thank you so much, Dr. Anthony, thank you so much for joining us and to refer a patient to Dr. Anthony or to the Penn hip preservation center, please visit Penn.medicine.org/refer. Or you can call 877-937-PENN. That concludes this episode from the specialists at Penn medicine.

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