

**(Melanie Cole) Host:** Welcome to the podcast series from the specialists at Penn Medicine. I'm Melanie Cole. And today, we're discussing the Bariatric Surgery Program at Penn Medicine. Joining me in this panel is Dr. Noel Williams. He's the Director of Penn Metabolic and Bariatric Surgery and a Rhoads-Harrington Professor in Surgery at Penn Medicine; and Dr. Colleen Tewksbury, the bariatric program manager and a senior research investigator at the Perelman School of Medicine at the University of Pennsylvania.

Thank you so much for joining us today. And Dr. Williams, I'd like to start with you.

For other providers that are hearing from their patients, what are some of the most popular misconceptions about bariatric surgery that you've heard or the individuals having these surgeries? What would you most like to correct?

**Noel Williams, MD:** In relation to bariatric surgery, I think the major misconceptions are that this is a very dangerous procedure across the board. This is actually not correct. Many patients who come to see us have many comorbidities or other illnesses like sleep apnea, high blood pressure. And people feel that because they have these, they're not going to be safe candidates for surgery. However, this is indeed a misconception.

And when we see new patients, we assess them very carefully to make sure that any medical conditions that they have that we need to improve on before surgery, we do so to make it a safe operation when the patient comes to surgery.

**Host:** Well, thank you so much, Dr. Williams, because those are important misconceptions.

Dr. Tewksbury, please speak a little bit about some hard and fast prerequisites for bariatric surgery. Tell us about patient selection.

**Dr. Colleen Tewksbury:** For patient selection specifically, I think that also speaks to the idea of misconceptions. It's not a quick process for patients. Anyone who perceives bariatric surgery to be almost the "easy way out" or a quick process to undergo surgery may not be as familiar with how it actually functions.

So the preoperative process typically starts with a patient starting off with getting an education session of some sort, an information session, and an initial consult. And then they complete anywhere from three to six months of preoperative counseling that's usually dictated by their insurance payer, as to how long that is and what's included in terms of testing. Some of that may be required by the program as well to screen for, let's say, undiagnosed diabetes or any concerns from a radiology standpoint that may be worrisome from a surgical approach standpoint. So there are additional tests that need to be done prior to surgery to see whether or not the patient fits the criteria to actually undergo surgery.

One misconception that often comes up that isn't always talked about within our clinical guidelines are the requirements around preoperative weight loss.

We hear often, and it's really been common practice for decades to recommend or even require preoperative weight loss to be considered a candidate for bariatric surgery. That dates back to the 1991 consensus panel from the NIH that had an off comment that didn't have any additional citations, no papers just yet, no studies really supporting this recommendation, but that patients should have tried non-surgical means of weight loss prior to seeking surgical intervention. And programs and insurers started to build that requirement in as a part of the preoperative process, that there should be some last ditch effort towards weight loss or almost patients having to prove themselves that they're able to adhere to some of these behavioral recommendations to undergo surgery.

Now, what we have found in the decades since is that observational trials and some of the high level randomized controlled trials that have been done to assess whether or not these preoperative weight loss periods actually have that much of an impact on perioperative outcomes and long-term post-operative outcomes, not really that clear. There's no consistently demonstrated benefit of requiring preoperative weight loss.

But what we do see is that tends to be a barrier for individuals undergoing surgery and receiving treatment, that if patients aren't able to have even modest amounts of weight loss, many times, they aren't even able to undergo the operation, whether that be from program requirements or payer requirements, despite us knowing that isn't something that is a strong correlate of perioperative or postoperative long-term outcomes, and oftentimes ends up being a gatekeeping aspect to surgery and actually receiving care.

And as a dietician, I would love to be able to say that having that preoperative counseling is really setting the stage for long-term post-operative outcomes, but the data really doesn't bear that out. We've actually seen that providing that postoperative support is key. That's likely more important in the long run, but we're continuing to measure and see where are the best interventions.

But in terms of who's a candidate, many of our preconceived notions are being challenged including for some high risk patients. At Penn Medicine, we are now operating on patients as a bridge to a solid organ transplantation for those who are looking to potentially undergo a kidney transplantation or a liver transplant, heart transplant. And we are working to coordinate care with other subspecialties, should be able to operate safely on high-risk patients and to be able to increase the likelihood that they get listed for transplant and undergo that transplant and hopefully reduce the risks of that subsequent transplant.

**Dr. Noel Williams:** Just to follow up a little bit on that very briefly also in terms of the complexity of patients here at Penn Medicine, we have something called a review board where we assess our patients at the first visit. And if we find that they're a very high-risk group based on a scoring system, we put them through a thorough workup beforehand. In other words, making them in a much safer position from a risk factor standpoint.

So we've shown over the years that patients who enter that review board program having gone through very careful assessment and optimization of their conditions, they become a very acceptable risk to have surgery as a normal patient without a high risk factor.

**Host:** And what about referral criteria, Dr. Williams? As we're speaking about patient selection for other providers, what would you tell them to know about referring to the program at Penn Medicine?

**Dr. Noel Williams:** So the most important thing to realize is that we get patients from pretty much all disciplines and specialties within the hospital. So if you go through the body as a whole, for example, neurosurgical patients who have pseudotumor cerebri, where patients have headaches and raised intracranial pressure associated with obesity, we'll refer those patients.

Often patients have bad sleep apnea, they have asthma, patients who have high blood pressure, reflux, patients who have joint diseases, all these patients come from many groups to see us. And it's important to know that all these different conditions can be improved at the time of surgery.

**Host:** And Dr. Williams, sticking with you for a second, tell us the types of surgeries that are available. Which do you most often perform and why?

**Dr. Williams:** So at Penn Medicine, we perform either a sleeve gastrectomy or a gastric bypass. Both of these are done in a minimally invasive fashion or small keyhole surgery. We also use robotic approach to do these MIS or minimally invasive surgeries.

The sleeve gastrectomy, not just here but across the country now, is probably the most commonly performed operation. Essentially, you make the stomach much smaller, meaning that you take away 60, 70, or sometimes at 75% of the stomach. You take it away, as in divide it and remove that portion. And therefore, the patient has a decreased ability to eat the amount of food and also decrease in the desire to eat.

And then the gastric bypass is a little bit more involved where we make a small pouch and then bring a loop of intestine up to bypass the stomach itself. And therefore, there is combined component approach here, meaning a small pouch where you decrease the amount of food you can eat, number one.

And number two, it's what's called a malabsorptive operation. So the nutrients are absorbed later or further down in the GI tract. Therefore, decreasing the number of nutrients coming in; therefore, patients lose weight that way.

We do not do Lap-Bands. There was a time when people did Lap-Bands. We have stopped doing that about probably eight years ago, maybe a little bit more. Sometimes done in other centers around the country, but really in very small number.

The other thing that we have at Penn Medicine is that we do a lot of revisional operations. So we often get patients referred from other institutions or indeed our own patients where patients develop some of the long-term complications associated with these operations that may require revisional surgery.

So a lot of these patients end up being referred to us here at Penn Medicine.

**Host:** Dr. Tewksbury, in this unprecedented time we're living in, how are post-bariatric surgery patients coping with COVID-19?

Have you seen an uptick in weight gain related to anxiety or activity limitation? And while you're telling us that, tell us how your clinic has evolved care since the onset of the pandemic? What's changed? Have you been using telemedicine? Tell us about that.

**Dr. Colleen Tewksbury:** In the past year, almost everything in relation to preoperative and postoperative care looks very different compared to how it did a year and a half, two years, five years ago at this point.

For our patients anecdotally, it really ranges the gamut as to whether or not patients are finding being at home, being able to be more structured is more challenging for them to be able to adhere to some of their behavioral goals or if that's something that really helps them have more control over their dietary intake, they're dining out less, they have the ability to exercise, they no longer have their commute. Lots of different reports back from patients as to where their challenges are. So it's not to say that everyone's struggling from a weight standpoint or everyone's doing well. It's really very individualized during this time.

But what I will say is that most people have had a total overhaul of their typical day to day and have had to relearn things that they may have mastered previously. So whether that be their meal patterns for themselves, their caloric intake with tracking, their physical activity levels. High likelihood that for the vast majority of the patients that we serve, that's changed in some shape or form whether it be that their work hours have increased and they are outside the home more if they're an essential worker or if they're home all the time. They've had to relearn these items.

So one of the things, what we've found is that our requests for, one, new patient appointments, but also long-term followup have really skyrocketed. We are posed with the challenge right now, that's a fantastic challenge to have, but something that we're trying to meet the demand of, that people want help, they want support during this time around their weight management goals. So that includes preoperatively and also long-term where we may not have heard from someone for years that they have now wanted to come back and talk to our team.

What we've done to be able to maintain everyone's safety while still providing support both preoperatively and postoperatively is that we are primarily operating from a remote telemedicine system at this point.

So we've been able to transition our clinicians and our operations that if we don't need to physically assess someone, and it is primarily a counseling or a followup clinical appointment, let's say, with the nurse practitioner specializing bariatric surgery, or with one of our dietitians or even our psychologists, we're able to provide that care via video visits or, if need be, via telephone visits, which has really given us an opportunity. Although some of

the visits may be a little bit lower quality in terms of communication than in in-person. We've been able to access more people and we're given this fantastic, I think, opportunity and a wonderful glimpse into our patients' lives as a dietician, rather than a patient trying to remember what supplements they're taking or this food product that they recently bought, they just get up and walk over to the kitchen and show us.

I've done telemedicine visits, where the patient is in their car or they are on break from work. And those are individuals that may have never been able to make it into the office. And now, they're able to complete a visit virtually and we're still able to have check-ins. So we've been able to pivot and continue our operations and hopefully be able to reach more individuals during this time.

**Dr. Williams:** And if I could just add, I think that's a fantastic summary and if you look at studies about COVID, one of the risk factors of patients doing poorly with COVID infections is of course obesity.

So I think there is an awareness across the country and the world actually in relation to obesity and COVID, and this has increased the interest of these patients who are morbidly obese in wanting to get bariatric surgery.

And then coincidentally, as Colleen has pointed out, being able to get these patients into our system easier than them physically making it here and coming to see us in the hospital, so the telemedicine has really been revolutionary from that standpoint. And we've noticed a much higher percentage of patients who actually show up in clinic visits based on telemedicine.

**Dr. Tewksbury:** Yes. And to continue to add to that, Dr. Williams makes a great point in that, especially in the times of COVID and having obesity as being a risk factor the complications that individuals can develop with contracting COVID, is that something that us in the weight management field have been talking about for years, that early intervention is key, is now really coming to the forefront, that individuals who may not have considered bariatric surgery previously or really taking more pharmaceutical or surgical interventions as potential options for themselves are now realizing that this may be the best time for them to really intervene. And that is a fantastic thing.

Access for our field has been a significant challenge. And unfortunately, if you look at some of the work that's been done out of epidemiological group specifically published in 2020, if we continue on the trajectory that we're on, approximately one in four US adults is going to have a body mass index of 35 or higher by 2030.

So prevention is great, but need a lot of solid treatment options and we need to be able to improve access and COVID, although it has posed a lot of challenges, I think one of the opportunities that is presented is that we're able to break down some of the barriers to access and reach more people.

And we're hoping that we can continue this as the pandemic starts to subside.

**Host:** It certainly has been an interesting evolution during this pandemic, hasn't it?

So, Dr. Williams, as we're getting ready to wrap up here, tell us about the multidisciplinary approach that's so important for these patients. What does that look like for your team? Who's involved?

**Dr. Williams:** To mention the word team is really important. Patients often talk to me and say, "You're the surgeon." And I immediately say to them, "No, this is really a multidisciplinary group."

As Colleen pointed out earlier, the patients first enter our program through an information session before a visit/ but at their first visit, they meet with a dietician who takes a very detailed dietary history, a nurse practitioner who goes through their entire medical history. And then on the first visit, I would talk to them in addition to those two individuals about the surgeries that we do, the risks associated with it and, obviously more importantly, how we make sure those risks don't happen to those patients.

Subsequent to that, every patient gets a psychological evaluation. Most patients would get a cardiac clearance, many patients who do not have a diagnosis of sleep apnea would see one of the pulmonary people to get a sleep study. And oftentimes, patients who have these conditions would first see these specialists before getting cleared for surgery. So it just shows the multidisciplinary nature.

The other specialty that's really important are our anesthesiology colleagues. We're very fortunate here at Penn Medicine in that we have a team of anesthesiologists who are dedicated to the bariatric program, and oftentimes we would need to get one of these patients seen upfront by them as a preoperative consult.

So having that access to anesthesia makes this a much more safe situation. And then lastly, the inpatient care. So we're again fortunate to have our own floor where the patients go to. They don't go just to a generalized med-surg med floor. They go to the bariatric surgery floor where the nurses are highly trained. We have advanced practice practitioners who are on those floors also to take care of the health of these patients.

And then, as Colleen pointed out, this continues into the postoperative arena of our staff, following up these patients pretty much forever. We hope patients would follow up forever.

**Host:** Dr. Tewksbury, last word to you. Tell other providers what you'd like them to know about referral to the Penn Medicine Bariatric Surgery Program. What makes this program stand apart? What makes it unique? What would you like them to know?

**Dr. Tewksbury:** So what makes her program unique unfortunately is something that I wish I could say that every program does. I think that our program really is a leader in terms of providing patient-centered care and working to reduce barriers to being able to access

surgery. So we work really hard, as Dr. Williams had mentioned, to make sure that we have a multidisciplinary team that works together, that their support from each aspect of care for patients to be able to really provide them with the necessary tools and minimize risk going into this operation, but recognizing that this operation is only one time point in the care continuum for these patients.

Obesity is a chronic disease and it is not a one and done treatment. This is something that requires constant follow-up and management. And it requires specific expertise from each of our disciplines, from the dieticians, from the psychologists, from the nurse practitioners, from our nursing team, from our surgeons. Although there is overlap between them, they have to work together to be able to provide patient-centered care and ultimately really support a patient who chooses surgery to be able to work their way up to the arc of surgery and then also heal properly and set themselves up to be able to have the skillset needed to be able to manage this disease lifelong, and to continue to provide that support for that individual patient, unlike where many programs will just focus on that surgery by itself.

This is just one part of the continuum of care when it comes to chronic disease treatment and obesity treatment, and we really aim to be able to provide services for every step of that process.

**Dr. Williams:** And again, if I could just finish by commenting those three groups that we work very carefully with in relation to this collaborative treatment, as it were, as Colleen is pointing out. And that's the Center for Weight and Eating Disorders here in the Department of Psychiatry and Psychology. We have very close collaborations with that group in relation to the psychological management of obesity. We also work with the GI physicians here who have a great interest in obesity also. And we refer patients to them both pre and post, them to us patients who have obesity and GI disorders. And then lastly, we collaborate very carefully with the Penn Medicine Metabolic Medicine Group, which would be diabetic and obesity patients who see the endocrine folks. They send patients to us and vice versa. And oftentimes that continued care of the obese patient happens after the fact. Then, obviously a lot of patients come to see us for surgery having been in those three programs.

**Dr. Tewksbury:** And I think the primary item that we are very proud of for all of those groups, with working in conjunction with each other, is that when an individual presents to our office, the last thing will be met with this judgment. There's a lot of shame and a lot of challenges that our patients face from a cultural standpoint, outside of our office. We work really hard from an advocacy standpoint to try and reduce some of those barriers and our colleagues at the Center for Weight and Eating Disorders are our leaders in some of the research around weight stigma and how much of a barrier it is for individuals seeking care and being able to really do well with following through with care and being able to have a great response to treatment overall.

And we work really hard as a clinical team to make sure that we are meeting a patient where they're at, helping reduce barriers and helping support them in their choices for treatment options and making sure that as soon as they walk through the doors, the last thing we want

them worrying about is are they going to be able to fit on the equipment? Is that chair going to be able to hold them? Will they be weighing me in the hallway? Will we be constantly talking about my weight or are we talking about my health and care long-term rather than just that number on the scale? So we work really hard to make sure that we have a weight inclusive environment and that we're here for chronic disease treatment and not for vanity or someone's moral failing.

And I think that's pervasive throughout our group and throughout Penn Medicine. We work really hard to try and minimize that stigma as much as possible, which we know is necessary to be able to really treat people like the full humans that they are and be able to provide them with chronic disease treatment.

**Host:** Thank you both so much for joining us today. What an informative episode.

To refer your patient to a specialist at the Bariatric Surgery Program at Penn Medicine, please visit our website at [pennmedicine.org/refer](https://www.pennmedicine.org/refer). Or you can call (877) 937-PENN.

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