

Episode 15 – Physiotherapy: Prehab and Rehab

(Intro) Pam: Do you have an upcoming surgery? Are you feeling a little bit overwhelmed? Then this is the podcast for you. Welcome to Operation Preparation. You are listening to the Pre Anaesthetic Assessment Clinic podcast, or PAAC for short, from St. James's Hospital, Dublin. Here we put together a series of short episodes to help you, your family and your loved ones learn more about your upcoming perioperative experience.

Aislinn: Hi everyone, and welcome to episode 15 of Operation Preparation. Here with you today is myself, doctor Aislinn Sherwin, a Consultant Anaesthesiologist, and doctor Julie Barrett, one of our junior anaesthetic doctors from the Pre-Anaesthesia Assessment Clinic. We're also joined by our guest speaker, physiotherapist Niamh McCarthy, who's going to tell us all about prehab and rehab. So Niamh, straight in. First question, what is or what do we mean by prehabilitation or prehab for short?

Niamh: Firstly, thanks so much for having me on today. It's great to have physiotherapy represented and to have the opportunity to discuss what prehab is, so to get straight to it, prehab is the process of enhancing someone's physical and functional capacity so they're better able to withstand a stressful event such as surgery. In simple terms, it's about improving your strength and fitness before undergoing your surgery. Prehab does also include nutrition, how to adequately fuel your body, as well as psychological support and advice. Today, we will focus just on discussing the physical activity and exercise aspect, as this is the area that has the most clear information and research available to us.

Julie: Great. Thanks so much, Niamh. Can you tell us, why is it important to do this?

Niamh: So as has been discussed before in this podcast, both anaesthetic and surgery places a significant stress on the body, so the better prepared you are physically, the smoother the journey should be. It also has benefits such as reduced risk of complications like chest infections, wound infections, shorter hospital stays and faster recovery at home. Everyone will lose some strength and function after their surgery and then you'll enter a rehab phase. But people who have a lower level of fitness or functional strength to begin with are more likely to experience complications and have a tougher recovery. On the other hand, though, those who do prehab or who are already active and strong tend to bounce back more quickly and return to their normal quality of life sooner.

Aislinn: And I'm sure nobody wants to stay in hospital for longer than they have to, Niamh, so it really is an important thing to do. But can you tell us a little bit about what we are talking about and what it involves?

Niamh: So we can think about it in terms of risk factors, some things like your age or certain medical conditions you might have are non-modifiable, so we can't fix them. But other things such as your cardiorespiratory fitness, your functional capacity and muscle strength are modifiable, so we can change them. Lifestyle factors like smoking and alcohol intake can also fall into this category. So really, prehab is about improving the things that you can change, which is mainly your overall fitness and your strength.

Julie: So Niamh, are there benefits beyond this preparation for surgery?

Niamh: Absolutely. Exercise doesn't just improve your fitness and your muscle strength. It has benefits such as boosting your mood and your mental health. It reduces your anxiety, improves your bone health, your sleep and your energy, as well as lowering the risk of conditions such as heart disease and some cancers.

Aislinn: And it's definitely a good idea to keep those habits up through the rest of your life as it will continue to reduce your risk of conditions such as heart disease and cancers, but how much and what kind of exercise, Niamh, should we do before surgery?

Niamh: The short answer for that is that some is better than none and more is better than some. We can think about national guidelines to focus our aim. In Ireland, adults are recommended to aim for at least 150 minutes of moderate intensity activity per week plus at least two days of strength training. When we say moderate intensity, that means that you're breathing a little bit heavier or faster, but you're still able to hold a conversation. So this could be walking, cycling, jogging or swimming. Strength training doesn't require a gym, so bodyweight exercises are a great starting point. You can progress this by adding simple weights like water bottles, tins of beans or resistance bands. Examples can include sitting and standing, stepping up and down and overhead lifts. There are videos of these exercises included in the show notes. So aim for 10 to 15 repetitions of each exercise two to three times per week. Start small and go at your own pace and build it gradually. The same goes for your cardio.

Julie: Thanks so much, Niamh. It's really great to hear of all the things we can do at home as well. So let's just say, I don't exercise regularly at the moment, where do I even begin?

Niamh: First of all, don't panic. The key is to break it into small and manageable chunks. So start off with 10 minutes and then gradually increase it. Think of the two main components. You've got your cardiovascular and your strength. Choose activities that you enjoy, whether that's walking, cycling, swimming or even dancing.

Strength training then may feel a little bit less familiar, but it doesn't have to be complicated. So four simple movements, sitting and standing, stepping up and down, lifting a weight over your head or to the side. These can make a big difference. Aim towards the 10 to 15 repetitions three times and do that twice a week. And do remember as well that exercise can be social, it can be fun. So community classes, group activities or even asking a friend or family member to join you can help as well with your motivation and your enjoyment.

Aislinn: That's great, Niamh. So I've had my surgery, I'm in my hospital bed after my operation, should I continue exercising now that I'm here?

Niamh: So that's not a very simple yes or no question, but it depends on your surgery. Usually, a physiotherapist will see you after your operation and will help you to get moving safely. They'll also advise on if there's any specific exercises for your recovery. If there's no structured physio follow-up, the best approach is just to start gently, often just walking, and then gradually increase this as you feel able. Generally speaking, you should get moving and

get out of bed as soon as possible after your surgery, although you mightn't want to hear this. This is most often the following day. Some specific types of surgery will require you to remain in bed or on what we might call bed rest, but in most cases, the best thing you can do to help start your recovery is to get out of bed and start to move. You may or may not need help with this and that is okay.

Aislinn: And Niamh, are there any other post-op things to help my recovery that I can do after my operation?

Niamh: Yeah, there's other things like breathing exercises that we can do. So, there is a technique called the Active Cycle of Breathing Technique or ACBT for short and this is a series of breathing exercises to help encourage you to take big deep breaths in and to help you have a strong cough. This is important after your recovery to help prevent chest infections and make sure your chest is strong and clear. There's also a video of this in the show notes to have a look at.

Julie: Great. Thanks so much, Niamh and Aislinn. So let's just say we need some take home messages about this episode, can you help us with that, Niamh?

Niamh: So let's summarise it a little bit. One of the best ways to prepare for surgery is to increase your physical activity. This lowers your risk of post-operative complications, shortens your hospital stay and helps you recover more smoothly.

There is a general information booklet included in the show notes as well. This will summarise all we've discussed today and it includes information on why all of this is important and some exercise advice too. There's other benefits too to exercise such as boosting your mood, your energy and your overall health. So focus on both your cardio, like your walking or cycling, and your strength work, like sitting and standing and lifting light weights. And just remember that a little bit is better than nothing and more is better than a little bit.

Aislinn: And that's a great message Niamh to finish on that a little is better than nothing and more is better than a little. So thanks to everybody for listening to today's episode physiotherapy - prehab and rehab and thanks again to our excellent guest speaker physiotherapist, Niamh McCarthy. Stay tuned to hear all about Intensive Care in episode 16.

(Outro) Aislinn: You have been listening to Operation Preparation, the Pre Anaesthetic Assessment Clinic podcast from St. James's Hospital, Dublin. Don't forget to subscribe and check out our website, links and abbreviation in our show notes to learn more about the topics we've covered today. If you have a question that you would like us to cover here, email us at operationpreparation@stjames.ie. Thank you for listening. Until next time.