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### *The What, Why, & How of Nutrition and Pain*



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Hi, and welcome to this presentation on the what, why and how of nutrition and pain. My name's Katherine and I'm a dietitian who's really passionate about raising awareness of the role nutrition plays in pain management. As someone who experiences pain themselves, has a love of food, and a real interest in pain, science, and how the body works, I have spent the last few years exploring the relationship between nutrition and pain. When you think about pain management, nutrition's probably not the first thing you think of. That's why I want to raise awareness and share with you exactly how nutrition can help improve your pain experiences. So before I jump into that, I just wanted to run through the five main factors that are related to pain management. This is biomedical, mindbody, connection, physical activity, and nutrition. Strategies from each of these five factors work together in a pain management plan to help improve pain experiences. And you may have come across some of these factors and strategies in your own pain journey. They all work together. They're all linked. And I'd like to use nutrition as an example to show you how it's all connected. The first is biomedical. From a nutrition perspective, when we're experiencing pain, we have increased levels of inflammation and stress in our body. There's certain nutritional strategies like consuming healthy fats and oils and antioxidants, which are found in oily fish, nuts and seeds and brightly colored fruit and vegetables, that help reduce this inflammation and stress in the body. Over time, about three months, we'll then have improvements in our pain experience. The next is mindbody and nutrition. So our mental health, our thoughts and emotions often impact what we eat. But the opposite is also true. What we eat impacts our mental health. The good news is the nutritional strategies used for pain are the same or very similar to those that are used to improve mental health. So if you're following these nutritional strategies and you have other mental health issues such as anxiety and depression, you'll likely find that you'll have improvements in those as well. There's some other practical considerations here as well. So things like emotional or comfort eating or a loss of appetite or low motivation. Looking now at connection, we have a real connection and social attachment with eating. There's so many different social aspects associated with eating. We often connect with our family and friends over the dinner table, at a restaurant or grabbing a coffee. There's a number of different celebrations and cultural events that are centered around food. When we isolate or withdraw because of our pain, we're also isolating and withdrawing from these social activities, and we can lose our social meaning and connection with food. Next is physical activity, which is looking at building strength and increasing movement. When we're building strength, protein is a nutrient that can help us do that. In terms of movement and mobility, though, there can be some issues with shopping, cooking or preparing a meal. Spending a long time in a supermarket or in the kitchen might make pain experiences worse. So what are some tips and tricks that we can put in place

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that will help reduce the time in the supermarket, or the time in the kitchen?  
And lastly, we have nutrition. So this is looking at the how, and the what to eat when we're experiencing pain. And also looking at some of the co-morbidities or chronic health conditions that are associated with chronic pain, things like heart disease or diabetes. If we can use nutritional strategies to improve things like heart disease and diabetes, we'll also be helping to improve our pain experiences. Now, this next slide is a little bit busy, but I've done that on purpose. I really want to highlight that the relationship between nutrition and pain is busy. It's complicated and it's complex. And all of these examples show you that there's a lot to think about when it comes to pain and nutrition. I've touched on some of these already, such as chronic conditions, inflammation, nutrient requirements, such as protein requirements, or the types of fats and oils that you're consuming are different when you're experiencing chronic pain. Some of the ones I haven't touched on are things like medication side effects. A lot of medications that are associated with pain management may lead to constipation or nausea. Things like increasing fibre and water intake can really help to prevent and reduce constipation. And things like nausea and appetite may impact on, you know, the types of foods that you're prepared to eat, for example. Pain, sleep and eating habits is also another vicious cycle. When we experience pain, we often have poor sleep, and then we often rely on foods that are high in sugar and caffeine to keep us awake. But then that may lead to another poor night's sleep. Increased pain, increased reliance on foods that are high in sugar and caffeine. So thinking about strategies to try and break that cycle, like avoiding caffeine in the afternoon can really help to put that cycle back on track so that we're improving our pain, eating and sleep. I've talked about eating occasions and social events, food and mood, and the meaning of food and eating. It's different for everyone. Similarly, food choices. We all have different food preferences, different likes and dislikes that need to be taken into consideration. Our energy and enthusiasm is also different. Every individual has different levels of energy and enthusiasm when it comes to food. So making sure that there's an individualised and tailored plan in place can be really helpful. I've also mentioned access and ability to shop and cook for food. So again, thinking about some of those strategies that reduce the time in the kitchen or in the supermarket. But at the end of the day, nutrition matters. It matters for pain and it matters for just overall health and happiness. And I want to touch on a few strategies around what to eat when you're experiencing pain. So starting off with fruit and vegetables, consuming a wide variety of different colored fruit and vegetables is really important, especially in red, purple, blue colours. So things like mixed berries, raspberries, blueberries, things like that. They contain antioxidants, which I've mentioned, that help reduce stress in the body. Yet, our bodies don't need antioxidants. We can function without them, but we function a lot better

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and a lot easier when we have antioxidants. They help the body process and function in a much faster and easier way.

Healthy fats, so again, things like oily fish, nuts, seeds, using olive oils, avocados, things like that really help to reduce inflammation in the body. Water's a really important one. Water can prevent dehydration. When we're dehydrated, our pain experiences can actually feel a lot worse than they are. So making sure that we're well hydrated with water in particular is really helpful. Fibre is the next one, so I've talked about fibre in relation to constipation, but we also have a lot of gut bugs that live in our stomach and intestines. When our gut bugs are healthy and happy, our body is healthy and happy, and the food that our gut bugs love the most is fibre. So making sure we're looking at whole grain sorts of foods and foods that are containing fibre, so making sure you're having the skin on your fruit and veggies, for example, legumes and things like that will really help boost your fibre intake and make those gut bugs happy and healthy. And lastly, we've got protein. So things like lean meats, good quality dairy foods, plant alternatives, like legumes, for example, really help to build muscle and maintain strength in the body. So I've talked a lot about what to eat, but I haven't really talked about how to eat. And it's very easy for me to tell you what to eat, but it's a lot harder to actually go away and do that. So I hope some of these strategies can make it a little bit easier for you to incorporate some of these nutritional changes into your day to day routine. The first one is to choose a wide variety of foods from the five main food groups. So this is vegetables, fruit, grains and cereals, particularly whole grains, lean meats and alternatives, and dairy. Next is really looking at strategies to increase your fruit and veg intake, not only the amount but also the variety. And to do this in a way that's not time consuming when you're preparing a meal. So frozen fruits and veggies, so things like your frozen mixed berries, your vegetable mixes, they even come in, say, a stir fry mix, or there's Mediterranean veggie mixes that are already chopped up, ready to go and take quite a chunk of time out of your meal preparation so you can get straight in and cook a meal with about four or five ingredients that might take 10 or 15 minutes. Reduced salt, canned vegetables, same thing. They take away that extra time in preparing ingredients in a recipe and make it really easy to cook. Often I get asked questions around the nutritional quality of frozen and canned vegetables, and they're the same or even better than fresh fruit and veggies. And you'll reduce your food waste as well. Food swaps is another really easy thing you can do. Have a look at what you've had to eat over the last few days. Is there any way that you could swap, say, a butter for an olive oil spread or the cooking oil that you use to olive oil? Is there any bread or pastas or cereals that you consume, can you choose a whole grain option, for example? And your lean proteins, If there's any processed meats, can you

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change that for a lean protein like chicken, for example? Another strategy is to carry a water bottle, and this helps to increase your water intake. You start the day with a full water bottle and have a particular time where you want that water bottle to be empty and have reminders throughout the day to keep drinking water. A couple of other things. Grocery shopping. So it can be time consuming to go to the grocery store, especially when you're experiencing pain. So one tip that I have for you is to divide your shopping into two sections. The first is your heavy items, your pantry items. You might be able to get those delivered in bulk online, but your fresh items, your fruit, veggies, meats, cheeses, dairy, sort of foods. Still try and go to the supermarket to get those because it gives you that social connection with food. Planning ahead if you're if you're making a recipe, a meal like spaghetti bolognese or casserole or a stew of some sort, make a little bit extra, so that you can pop it in the freezer and have it at a time where you might be having a flare up, for example. I'm not suggesting that you go and spend all of your Sunday doing meal preparation, but just think during the week if there certain meals that you're going to be cooking are there any that you can make extra of, and freeze them. Think about food related hobbies. So it might be gardening, for example, you might want to establish a herb garden or a veggie garden thinking about, you know, some of that social connection, going to get a coffee with friends. How can you include food within your interests and your hobbies? Often budget is something that's particularly of interest at the moment with cost of food increasing. There is a resource that I've attached with this presentation it's a website called No Money, No Time. It provides a wide variety of recipes that don't take very much time and don't cost a lot of money. So take a look at that. There's also some hints and tips on how to budget your shopping and ways that you can do your shopping in less than \$60 a week. And then lastly, sleep, pain and eating. Try and improve that cycle. Try and improve the pain, sleep, eating habits cycle. Again, by putting in some strategies like not having caffeine in the afternoon and trying to consume regular snacks throughout the day so you're not looking for those high sugary foods. The last part of this presentation, I just want to talk about the who, what and how of accredited practising dietitians. So who are we? What do we do and how can we find one? So an accredited practising dietitian is someone who's got a university qualification and have to undertake professional development over time to maintain their knowledge and understanding of the evidence around nutrition and different chronic diseases, different ways in which we can use nutrition to improve our overall health. We're also trained to give tailored and specific advice that's individualised for every client that we see. Accredited practising dietitians can do a number of things. The first, and main thing that we do is work with you.

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You're the expert in yourself. We're the expert in nutrition. So we work together in collaboration and partnership to come up with strategies that will suit your routine and your lifestyle. We also do nutritional needs assessments, we'll look at dietary assessments, which is quite important. When you're experiencing pain, there's some evidence to suggest that there are some vitamin and mineral deficiencies associated with chronic pain. So we can do a comprehensive dietary assessment and find out if you're deficient in any particular nutrient. We can also do personalised eating plans, nutritional counselling, so that's more around how to put these things into practice. Give healthy eating, shopping advice. You know, as I said, looking at budgets, shopping lists, those sorts of things, and we can give advice to treat diet related illnesses. So chronic pain is one, but others, as I've mentioned, heart disease, diabetes, anxiety, depression. So if there's other chronic health conditions that you're experiencing, a dietitian might be able to help you. And lastly, how can you find one? There's a couple of ways. The first is to ask your GP if there's any dietitians that they can refer you to or other health professionals that you might be seeing, such as a physiotherapist or exercise physiologist. They might be aware of some local dietitians in your area. The other place you can go is the Dietitians Australia website. There's a tool on there that you can use to find a dietitian. Put in your postcode, and it will show you the dietitians in your area. And lastly, just some resources. The first one here is a link to that tool where you can find a dietitian. Pop in your postcode, and you'll be able to find the dietitians that are local to where you live. The second is a video on lifestyle and nutrition through the Agency for Clinical Innovation. And this looks at some of the strategies that I've talked about, but also interviews some other people who experienced pain and how they've used nutrition to help them. There's also a nutrition fact sheet that you can find which expands on some of the tips and tricks that I've talked about in this presentation. And lastly, is the No Money, No Time website where you can find recipes and resources to help you create quick and easy meals that don't cost a lot of money. There's also an ebook on that website, How to Feel Fab with Mood Foods. So again, that overlap between pain and mental health issues. That's another really good resource that you might be able to use. All of these links will be available on the Chronic Pain Australia website as well. But I'd like to thank you for tuning in, watching this presentation. I hope you share some really good tips and tricks that you can take away. And if you found this information helpful, think about seeing if you can talk to a dietitian yourself. Thank you.