# Weight, obesity and women’s health – webinar transcript

**Dr Tessa King (00:05):**

Good evening everyone. My name is Dr Tessa King. I'm a women's health GP here at Jean Hailes, and I also work as a regular GP in Melbourne. I'm passionate about supporting women to optimise their physical and mental health through evidence-based nutrition, exercise, allied health, and medication. Outside of medicine, I'm a keen CrossFitter, and I believe that weight loss and exercise can transform people's lives, so I'm really excited to be part of this webinar. Tonight, I hope that we can give you some tools to help your patients achieve and maintain their weight loss goals. Firstly, I'd like to start by acknowledging the traditional custodians of the land we're presenting on and the lands that we're reaching tonight. I'm in Melbourne, on the land of the Wurundjeri and the Bunurong people of the Kulin Nation. I recognise their continuing connections to land, water, and culture, and pay respects to Elders past, present, and future.

**Dr Tessa King (01:01):**

For those that are new, Jean Hailes for Women's Health was established in 1992 with a vision to provide practical, accessible expert health information for all Australian women and girls. In tandem with our consumer education, the organisation also develops education resources for health professionals, including our webinar series, tools and online e-learning courses. Tonight's webinar is recorded and we will advise you when it is ready to view on our Jean Hailes website. You can find a link to the presentation slides in the Resources tab at the top right of your screen. We thank you for sending in your questions, and if we've got time, we'll aim to answer them at the end of the webinar. You can also submit questions tonight via the Q&A tab at the top right of your screen. If you require a certificate or RACGP points, you need to complete the evaluation questionnaire. This will come up as a link on the screen at the end of the webinar.

**Dr Tessa King (02:02):**

Joining me tonight is Dr Nellie Torkamani. Welcome Nellie.

**Dr Nellie Torkamani (02:05):**

Thank you, Tessa.

**Dr Tessa King (02:06):**

Nellie completed her training in endocrinology and general medicine at Royal Melbourne Hospital and Austin Health. She's passionate about research, and completed her PhD in 2016. She's published in various high-impact scientific journals and is a recipient of various awards. She consults on a range of issues including weight loss, diabetes, thyroid disease, osteoporosis, transgender health and endocrine disorders.

**Dr Tessa King (02:36):**

So we're going to talk tonight about how to approach weight with your clients. Weight is a delicate subject for many women. Our feelings about our body and weight can be tied up with our self-esteem, our emotions, our sexuality, and our mental health. Weight is not just a medical issue, it's so much more than that. And as health professionals, we need to approach weight management with sensitivity with that broader context in mind. So we're going to start, if we're approaching weight, with open-ended questions. So rather than getting the patient on the scales or telling them that they need to lose weight, it can be good to approach things by asking an open-ended question like, 'What are your health goals in relation to diet, exercise and self-care?' Or if there's a specific health issue such as high cholesterol, hypertension, diabetes, PCOS, or ischemic heart disease, you can use this as a springboard to discuss weight management and how the patient will get a tangible health benefit from any weight loss.

**Dr Tessa King (03:42):**

It's really important to listen to the patient and their specific concerns. Allow them time and be respectful and mindful. It's important to acknowledge that it's not just a matter of knowing what to do, but there can be other barriers like lack of time, emotional or stress eating that prevent weight loss, and ask the patient if it will be helpful to talk about these. It's important to take the time to listen to their concerns, their goals, and what they think is holding them back from weight loss. It's a good idea to tailor the types of questions you ask to the individual woman, once you have established her health goals and current lifestyle. Some example questions you might ask are, 'What do you think are sustainable changes you could make in relation to diet and exercise?' 'What types of exercise do you enjoy, and what exercise is sustainable for you?'

**Dr Tessa King (04:34):**

If your patient isn't exercising at all, you could ask, 'Can you commit to five minutes of exercise per day?' Often with habit forming, it's that initial barrier of getting into exercise clothes, and the first few minutes of exercise. But if the patient can break through that, then you're on your way to forming a new habit. And depending on the individual patient, it might be a good idea to raise the issue of emotional or stress or disordered eating. You could ask a question like, 'Lots of women eat as a way to cope with stress or emotions. Is that something you ever find yourself doing, or something you think might be a barrier for you with weight loss?' And this might lead into discussion about further disordered eating behaviours or psychological issues that need addressing before weight loss and management can be achieved.

**Dr Tessa King (05:23):**

In some women, alcohol consumption can also be a barrier to weight loss. It affects mood, ability to exercise, and food choices. If alcohol is a factor, then you could ask the patient if they would be willing to cut back on alcohol, and explore what's realistic for them. You could also suggest a period with no alcohol as a circuit breaker, normally a month just to see how they feel, and whether they notice any benefits. We have some great resources on the Jean Hailes website for consumers on healthy living, including weight management and alcohol management that may also be helpful.

**Dr Tessa King (05:59):**

A lot of women raise the issue of gaining weight despite doing things the same, or increasing their activity and reducing calories. While they might not have a medical condition that prevents weight loss, there could be other factors at play. There's a common misconception that all that matters in weight loss is 'calories in versus calories out', but in fact, there are numerous other factors that affect weight loss, appetite and basal metabolic rate. Some of these include sleep, body composition and lean muscle mass, previous periods of restrictive dieting, age, alcohol consumption, hormones, genetics, choice of macronutrients, i.e. what percentage carbohydrates, protein and fat that they're eating, timing of food in relation to exercise, and types of exercise that the patient is doing. I'll hand over now to Nellie, and she'll talk further about the various factors involved in weight loss and weight maintenance. Thanks Nellie.

**Dr Nellie Torkamani (07:01):**

Thank you Tessa. So how should we motivate our patients? The most important thing is, first of all, start with talking to them about what sort of benefits they're going to gain from weight loss. We should really clarify that any weight loss is a good amount of weight loss, so we are not really focusing on amounts of weight loss. Even a small amount would have really good benefits from a long-term perspective. There would be actually changes with mood, especially for women with changes in their mood mostly around their cycles throughout the month, there would be benefits with weight loss. Another way to help our women to have some weight loss is involve other health professionals. So use your allied health resources, that will be very helpful. Dietician, psychologist, exercise physiologists. These are resources that will be very, very helpful in gaining that sort of outcome that we want to achieve.

**Dr Nellie Torkamani (08:04):**

Slow weight loss is most likely to be sustained, and slow and steady wins the race. This is something that should be clarified for our clients and women that come to us, because usually people do get frustrated as weight loss is slow. But if they know that the slower they go, the more sustainable the weight loss is going to be, they will be more motivated to continue. And a very common problem that happens is burnout, and also fatigue, from dieting or changes in their lifestyle. So we can consider, after a period of weight loss, to give our clients a break. They can look at a period of maintenance, which would actually impact the metabolism rate, and then prevent the diet burnout that they might have. If diets are not working, we should consider things like mindful eating, or referral to a psychologist, or looking at psychological or social barriers that might be resulting in the problem.

**Dr Nellie Torkamani (09:06):**

So today's talk, I'm going to go through a couple of different aspects of weight loss. First of all, I will talk about the prevalence of obesity in the world and also in Australia. I'll talk about what the definition of 'obesity' and 'overweight' and 'morbid obesity' would be. What factors would contribute to excess weight? What are the consequences of obesity? How do we assess a patient? What sort of a management strategies are available to us? And then we'll have a summary of all of these. So obesity is changing into a worldwide epidemic, and in most industrial countries, the prevalence of obesity is getting up to 20% to 30% In Australia, based on data from 2017, we know that the prevalence of obesity or being overweight in women has reached about 60%. And also the prevalence of obesity by itself reached about 30%. The future's not looking really good as well, because obesity rates in children is increasing as well. The peak weight that has been reported in women has been between the ages of 45 to 52, which is actually around the perimenopause and menopausal ages. And the peak average median weight was about 70–80 kilograms.

**Dr Nellie Torkamani (10:32):**

Obesity is defined by BMI based on WHO criteria, but as you clearly know, BMI is not the best identifying factor to define obesity or being overweight. It's not a measure of fatness, and it is very much affected by different factors like ethnicity, gender, age, and other factors as well. Things like looking at a waist-to-hip ratio would be a better factor to look at the fatness of a person. So looking at the fat mass of a person rather than BMI. But because BMI is used very widely, just looking at the definition would be helpful. So 'obesity' is defined by a BMI of above 30, and 'overweight' is defined by a BMI equal and above 25.

**Dr Nellie Torkamani (11:27):**

As I mentioned, based on, actually, an Australian study, there has been evidence that a waist-to-hip ratio is the better factor, which would look at the distribution of the fat. So we know that all fats are not the same. Visceral fats, especially the fat which is distributed around the midline section and abdominal section, is mostly associated with increased risk of consequences such as diabetes, heart disease, fatty liver disease, and malignancies, while peripheral fat is not associated with that. So looking at a waist-to-hip ratio is a more specific factor. In men, we define as a waist measurement of more than 102 as 'high', and in women, more than 88 centimetres.

And obviously this has to be adjusted for ethnicity. So, many factors contribute to weight gain, other than the 'calories in and calories out'. There are environmental factors, and there's strong evidence that genetic factors contribute to weight gain. Environmental factors such as food supply, our eating behaviours, our family and work culture, how long do we spend with our family to sit down at a table and have food, what socioeconomic status we are living in, the urban design that is in factor, and also public policy are factors that contribute to weight gain.

**Dr Nellie Torkamani (12:53):**

Genetic factors are very, very important in our metabolic programming, our baseline metabolic rate, and also epigenetic changes which happen in-utero also contribute to weight gain. The endocrine system plays a major part in balancing our satiety, our appetite, our insulin resistance, and also our metabolic rate. A group of hormones called 'incretins' are the main hormones that regulate insulin resistance, insulin sensitivity, fat metabolism, and also appetite.

The major hormones that I want you to focus on today are the GLP-1 hormones, and also the GIP hormones. GLP-1 is a hormone that is secreted from the lining of the intestines, and it regulates insulin resistance, fat metabolism, and also it regulates the motility of gastric emptying, and it reduces gastric emptying. GIP also works as an incretin, but also there is good evidence that it is produced, it also has receptors on the adipocytes, and it is involved in adiploysis, and also fat burning. And on research that has been done in animals, there's very strong connection with GIP levels and also weight loss.

**Dr Nellie Torkamani (14:26):**

The consequences of obesity and mortality are very, very directly related to the level of obesity. So if we use BMI as our measuring factor, people who have, for BMIs between 25 to 50, every five kilograms increase was associated with significant increase in mortality for cardiovascular disease, cerebrovascular events, type 2 diabetes, chronic kidney disease and cancer. BMIs between 30 to 35, median survival was reduced by two to four years. And 40 to 45, median survival was reduced by eight to 10 years.

These are very, very significant numbers, and years of life that were lost are highest for people who have become obese younger and lived with obesity longer. The consequences of obesity are various, and I'm very sure that you are familiar with most of them. Type 2 diabetes, dyslipidaemia, ischemic heart disease, stroke, clots, different types of clottings, BTEs cancers, fatty liver disease, and the list goes on and on and on.

**Dr Nellie Torkamani (15:44):**

Adult weight change and the risk of disease is very drastic. So even a modest increase in weight, as an adult, is associated with an increased risk of type 2 diabetes, hypertension, coronary heart disease and gallstones. On this graph that you can see here, the red line is the association of weight gain and the risk of diabetes. You can see just the small amount of weight gain is increasing the risk of diabetes by two- to four-folds in both men and women, and actually it's much faster in women. So that really shows the importance of maintaining weight, and also weight loss.

**Dr Nellie Torkamani (16:26):**

So what do we do when we have our patients sitting in front of us and we want to start an assessment for weight loss? The most important thing is a very detailed and precise history taking. How long did it take them to gain the weight? Is this something that they have had a problem with since childhood? Is this something that has happened after pregnancy? Or this is something that has happened in the just last five years after menopause? What is their family history?

Are they the only person in the family who has problems with weight, or all of their family has weight issues? Has anyone had bariatric surgery in their family? What other problems do they have that can be related to their weight? Do they have hypertension? Do they have type 2 diabetes? Do they have cardiac issues? Sleep apnoea, which is a very common problem that we see in people who have excess weight and are obese, and which causes sleep issues, which as a result would cause more weight gain as well. How are their periods? Do they have problems with the regularity of their cycles? And how is their mental health?

**Dr Nellie Torkamani (17:36):**

Do they take any medications which will be resulting in the weight gain? The most common, as you know, are steroids. Are they on insulin? Do they take any antidepressants or anti-psychotics, which will be changing their metabolic and resulting in weight gain? Do they smoke? Do they drink alcohol? And what have they tried before? This is the most important question, because you might start giving someone a plan and they would just, in the middle, tell you, 'Oh, I've tried all of this before.' Have they tried diets? Have they tried meal replacement shakes? Have they exercised? And what, if they have used any medications for weight loss in the past?

**Dr Nellie Torkamani (18:15):**

Other physical examinations that are important in weight gain, especially in rapid weight gain, assessing for hypothyroidism. So if someone has a very large goiter, or if there's any features of Cushing's disease. Although for hypothyroidism, gaining an excessive amount of weight is pretty rare, usual weight gain with an underactive thyroid would be around two to four kilograms. And excessive weight gain just because of an underactive thyroid is not very much seen. Cushing's disease, which can result in accelerated weight gain, is a very rare condition, but very needed to be ruled out. On the other hand, PCOS, or PCOS, polycystic ovarian syndrome is very, very common, and we see it in our younger female population a lot. So asking for other features of PCOS including hyperandrogenism, hirsutism, acne and alopecia would be very important.

**Dr Nellie Torkamani (19:16):**

What about menopause? So menopause by itself does not, has not been shown to cause weight gain or significant increase in total fat mass. Reduction in the oestrogen level is associated with an increase in the total body fat, and also a redistribution of body fat, which increases the abdominal fat. But the main factors that have been associated with perimenopausal and menopausal weight gain are reduction in physical activity, dietary changes, if there is any genetic factors like family history of obesity, shift working stress, and medications that might be initiated around that time. As I mentioned earlier, the peak weight in women has been reported to be between that age of 45 and 52 as well. So baseline blood tests are important to investigate for any secondary complications or any sort of primary issues that might have caused the weight gain. And I'm sure that you are familiar with all of these.

**Dr Nellie Torkamani (20:21):**

How do we manage obesity? So the first and foremost important thing, to define a realistic goal. So to come up with a goal that we are going to achieve over a defined period of time, and have an agreement with our patient, and this should be a realistic, acceptable goal that is achievable. And this will make it much easier for our patients to work towards that. Weight loss of about 5% to 7% of the body weight carries enormous health benefits, and should be the primary goal for us. And it's, a lot of people would say that 5% is not much, but it actually does do a lot of benefit for our patients. 'Energy in and energy out' scenarios will eventually plateau, and the metabolic rate will slow down.

There are different diet plans that can be used to help our patients lose weight, which have good evidence, such as the meal replacement shakes, that would be the very low-energy diets, that could be done through different types of brands of shakes. The most common ones are Optifast and Optislim. So basically these plans are based on reduction of calorie intake and also inducing ketosis by reducing carbohydrate intake. Meal replacements, meals that are ready to take like Muscle Chef, Be Fit Foods, Weight Watchers, Jenny Craig, Fast800, 5:2 Diet and CSIRO Diet all are based on low carbohydrate intake and Mediterranean diet and also reduced calorie intake. So they would work for a big population of patients.

**Dr Nellie Torkamani (22:11):**

The defined energy expenditure is usually around 1200 calories per day, but I personally don't think calorie counting is a good way to approach weight loss. Diet adherence is a main factor in the success of these plans, but patients must realise that these are an ongoing lifestyle change, not a short fix. So the two diets that have really good evidence around causing weight loss are the low carb, as known as 'ketogenic' diets, and also a bit more limited in calorie intake through the very low energy diets, VLED shake replacements. So by inducing ketosis, ketone bodies are generated from breakdown of fatty acids in the body. This is inhibited by insulin and stimulated by glucagon. So this is optimised by restricting carbohydrates and fasting. There are different reports about what a low carbohydrate diet consists of, but they usually are less than 100 grams of carbohydrates per day, or less than 30% of the total energy consumption of the day to be managed by carbohydrates. The term 'ketogenic diet' often limited to diets that contain less than 50 of carbohydrates per day.

**Dr Nellie Torkamani (23:45):**

Not all low carb diets are ketogenic. It's important to look at the ratio between protein and fat and also carbohydrates in a person's diet to see whether they have a chance of going into ketosis. Ketosis will occur when fat intake exceeds twice the carbohydrate intake plus half the protein intake. Because if someone takes too much protein, that protein can eventually inhibit ketosis. As a result of ketosis, we will have diuresis, appetite suppression because of the ketone production, increased gluconeogenesis, and also change in food choices. People would have increased satiety because they are taking higher levels of protein, and there would be increased lipolysis. Reduction in triglyceride levels, increase in HDL levels and reduction in VLDL levels have been reported through a ketogenic diet. There is reports that LDL levels will increase, but it's interesting that there is emerging evidence that when a subfraction of LDLs have been checked, the LDL types that increase are not the smaller molecule and more dangerous types of LDL.

**Dr Nellie Torkamani (25:04):**

So in general, there is emerging evidence around this, but there is a lot of evidence that shows that a ketogenic diet would be very useful in management of malignancies and reducing the rates of relapse of malignancies by reducing insulin and also inflammation. It changes the microbiome of the guts and increases the ratio of the good bacteria that we look for to the bad bacteria. We know that ketogenic diets reduce HbA1c levels and help the control of diabetes. They induce weight loss, and by the changing the ratio of HDL to the very low-density lipoproteins, they would have cardiovascular benefit as well. So the old food paradigm that we have been all taught, which is high levels of carbohydrate intake and low levels of fat, has been reversed, as you can see in the image here, and this is the new proposed ketogenic diet plan that has been talked about for many, many years, and there's emerging evidence around.

**Dr Nellie Torkamani (26:14):**

What is the role of exercise in weight loss? So exercise has many beneficial outcomes, but it has benefits in maintaining weight, but by itself it doesn't induce weight loss, as much as we would like to. To be able to lose weight with exercise, you'll need to do a lot of exercise, a large pizza, to be able to burn that off, you'll need to run 40 minutes and walk for 90 minutes, for example, to be able to burn that. But the benefits of exercise are a lot, and it should be encouraged for maintaining weight and also increasing body stamina and also general health. It will help with preserving muscle mass, which in turn improves functionality and increases basal metabolic rate, meaning that the plateau in weight loss is reached later. It has been shown that the combination of aerobic exercise plus resistance training is the best type to preserve functionality in older adults. And when we have reached our goal weight, exercise should be used to maintain the weight.

**Dr Nellie Torkamani (27:31):**

A multidisciplinary approach to weight loss is the most important factor that defines success of a weight loss plan. The head of this team should be a patient's GP, which would be connecting the different professionals which are involved in the weight loss and directing the patient towards the goal. Either professionals such as dieticians, psychologists, exercise physiologists, a physiotherapist and an endocrinologist can also be part of a team. Another professional that is missed from this list are surgeons, so if we look at a surgical management for the weight loss. Cognitive behaviour therapy and behavioural-based treatment programs improve weight loss results and are associated with improvement in obesity-associated morbidity. So these are plans that we can look at and use in patients that we think that would benefit from it. Drug therapy. So, drug therapy is an emerging and changing paradigm in weight loss that has changed over the years significantly. With the new medications that we have available, a lot of weight loss goals have been able to be reached much easier ,and a lot of patients have been able to reach weights that they have never been able to before.

**Dr Nellie Torkamani (28:57):**

People who have a BMI of more than 30, or a BMI of more than 27 with a comorbidity associated with obesity, are candidates for weight loss medications. The decision to initiate drug therapy should be individualised and based on the patient's other comorbidities and risk factors. So it's not a clear-cut situation that, okay, if someone doesn't meet the BMI of 27 and their BMI is 26 and a half, we won't use medications. It really looks at the whole picture. Practitioners should be extremely familiar with the medications that they're using and also the expected weight loss that's going to happen, and the timelines, so the patients don't get disheartened and they don't stop the treatment course. Single agents are usually preferred over combination therapy because of the side effects associated with these medications, but combination therapy can be used. So the paradigm of weight loss, as I mentioned, is changing very rapidly, and we have many, many new medications.

**Dr Nellie Torkamani (30:01):**

I'll start from the end of the list. Older medications that actually have TGA approval are things like orlistat, or Contrave which is bupropion and naltrexone, phentermine and topiramate, which is duromine and topiramate, and also liraglutide also known as Saxenda. These are medications that have different pathways of mechanism for weight loss and they all have OTG approval. There are emerging GLP-1 agonists, and also GLP-1 and GIP analogues, that have been shown to have great impact in weight loss. These medications don't have TGA approval at the moment, but they have been shown, based on studies, that they cause significant weight loss. The most common one that you might have heard of is semaglutide or Ozempic, that has FDA approval for weight loss, but we don't have TGA approval at the moment. And the newest medication, which is not available anywhere yet, but it's awaiting FDA and TGA approval, is terzepatide, which is a GIP and GLP analogue.

**Dr Nellie Torkamani (31:17):**

So these are some of the studies that have looked at these medications, which, I'm going to focus on GLP-1 analogues because these are the medications that actually target the hormonal challenges that a person with obesity would have, rather than just suppressing appetite. So the first one that actually has TGA approval is liraglutide or Saxenda. And various studies have been done which show good amount of weight loss with Saxenda, usually around 5% to 10% weight loss. Afterwards, Ozempic or semaglutide was introduced for type 2 diabetes and went on to have trials for obesity in adults. And based on the trials that have been published in the New England Journal of Medicine, semaglutide results in about 14% body fat weight loss in adults over a 60-week period with a defined dose.

**Dr Nellie Torkamani (32:15):**

The newest medication, which I mentioned, is tirzepatide, which is both a GLP-1 analogue and a GIP analogue, which is very exciting, which has had very exciting outcomes. The study, the results were actually just published on the 28th of April, and based on the SURMOUNT-1 study, which hasn't been published yet, the results have been published by the drug company, there has been 22.5% body fat weight loss reported, so basically twice as effective as Ozempic. As I mentioned, Ozempic is off-label and if prescribed, it's off-label in Australia, it has FDA approval and the dosing of Ozempic is very important, and the dosing is different from dosing for diabetes. Tirzepatide is a space to watch and wait for it, as I have understood. Most likely it's going to be available in 2023 and it would be a very important factor. Saxenda is already available. It's a daily injection and the dosage can be, I think there's a typo here, the dosage is up to 3 milligrams daily, and we can reduce the doses to lower doses to reduce the cost, but the maximum dose used is 3 milligrams daily.

**Dr Nellie Torkamani (33:44):**

Duromine or phentermine plus topiramate has some benefit in weight loss. It's a stimulant and appetite suppressant. It has many, many side effects, including changes in mental health, and people with depression and anxiety should not be prescribed this medication, as there's reports of increased suicide rates. It can cause hypertension. But it is less costly. But the use of it is also limited to only 12 months. Bupropion and naltrexone, also known as Contrave, has also been used. The effectiveness is much less than the other medications.

**Dr Nellie Torkamani (34:23):**

The other treatment option is bariatric surgery. So it's a difficult subject. Many people don't really want it to be brought up. So it would be best to start with open-ended questions and get the feeling what the patient thinks about this option, if they know about it and what their wishes are. We usually approach patients with a BMI more than 40 to think about bariatric surgery, or people with a BMI more than 35 with at least one serious comorbidity. There's a great cost involved with bariatric surgery even if private health insurance is available. So this is something that needs to be discussed with the patient. And it's an irreversible change, which needs to have, it shouldn't be taken lightly. And a team management plan with involvement of psychologists and dieticians is very important. Different types of surgery are available. We don't really recommend gastric banding anymore. The two main types of surgery that are available at the moment are the gastric sleeve and also the Roux-en-Y gastric bypass, which is mostly reserved for high BMI patients or more complicated patients.

**Dr Nellie Torkamani (35:44):**

So if we're going to take some message, a few messages from this whole talk is, I think the most important thing is to be aware of the problem, which is very, very common in our society, and be able to bring up the topic with a sort of a non-derogatory language and open discussion, so we can work on it with our patients. Schedule follow-up visits, one visit might not be enough. People might need to go through, take the information in, think about it, go through it, talk to their family and the people involved in their lives about it, and make decisions slowly. And there's no rush about it. They can take the time and we can do the evaluation over multiple appointments. A treatment plan involving multiple health professionals is completely necessary and very helpful in the success of our plans. And we should really accept this, that it's life, and there will be times that we would not achieve what we want, and there will be setbacks. But like everything else in life, we'll be able to overcome that with a team plan, with working together with our patients and get past that stage.

**Dr Tessa King (36:58):**

Thanks so much, Nellie. That was great, and so informative, I think, for GPs and other health professionals working out there to sort of get an idea of the landscape and upcoming new medications, what's available, what the evidence is around that. So thanks so much, Nellie.

**Dr Nellie Torkamani (37:13):**

Pleasure.

**Dr Tessa King (37:14):**

Looking at the time, it looks like we've got some time for questions, so feel free to send any in to us. We've got a few already, so I'll start us off and then yeah, if you send some through, I'll have a look, that'll come through to me. So the first question, Nellie, is, what role does fasting insulin level play, and how best to utilise this result in selecting pharmacological agents for those without diabetes but who need weight management?

**Dr Nellie Torkamani (37:43):**

That's a fantastic question. So basically defining insulin resistance is not by fasting insulin levels. Yes, high insulin levels can be associated with insulin resistance, but the better parameter to look at is C-peptide level, which looks at the exact production of insulin in a person's body, which is more stable and not affected by their fasting status on the day that they had the test, or what they ate the night before. A very better parameter that we can look at is an insulin curve, so basically doing an OGTT and looking at the insulin levels that are changing with the glucose load, so before the glucose load, one hour, and two hours after. And that is really factor that is associated with insulin resistance, and will change our medication choices. So what we would look at with choosing medications in these patients is, while they don't have diabetes they are high risk of getting diabetes. And depending on the insulin resistance, then we'll look at medications that can reduce the insulin resistance and help them lose the weight.

**Dr Tessa King (38:51):**

Thanks so much for that. And at what point, Nellie, would you suggest Ozempic for weight loss?

**Dr Nellie Torkamani (38:59):**

So basically based on a BMI, if you look at a BMI, that will be ABMI more than 30 for any medications that we want to start, or a BMI more than 27 plus sort of a comorbidity. As I mentioned, Ozempic is not approved by the TGA at the moment for weight loss in Australia. So the medication of choice at the moment to be used in Australia is liraglutide or Saxenda.

**Dr Tessa King (39:28):**

Thanks so much. And now Nellie, we were just discussing this outside before we came in, just a question about how we can support our patients with weight management and obesity issues during the perimenopause and menopausal stage, and also those with hormone issues like PMDD or other hormonal issues related to thyroid, how can weight management help those patients?

**Dr Nellie Torkamani (39:53):**

Certainly. So I think weight has really, plays a big part in fluctuations of hormones in the body. So what we see in our premenopause and menopausal ladies is mainly in perimenopause, we get a big rate of fluctuations between high rates of oestrogen production and low rates and ups and downs, which causes mood changes and also symptoms of perimenopause and menopause like hot flushes and tiredness and poor sleep. So anything that balances out these changes in hormones will help. One factor is weight loss. The less the fat mass in the body, the less the fluctuations in the oestrogen levels, and the more stability. So one factor would be, be open to using medications for these ladies if they have a significant amount of weight gain or they've had a really fast amount of weight gain in a short period of time. So if someone has, for example, gained eight kilograms over a month, we should be open to following that up really early and starting intervention early before that increases. So I think being open to medication, as well as diet and exercise and all those other things that we would advocate for, is a really good plan for these patients.

**Dr Tessa King (41:09):**

Yeah. I've had a couple of people ask just in regards to, do you need any specific training before prescribing Ozempic? Could a gynaecologist or a GP initiate prescribing it? And what is the maximum dose? How do we actually go about prescribing this medication?

**Dr Nellie Torkamani (41:28):**

Sure. So again, Ozempic is off-label in Australia, and if someone going to prescribe it, they have to really discuss this with the patients, explain this is off-label, it's not approved by the TGA and all the factors involved with it. But yes, anyone can prescribe it. It's a private script, it's not subsidised and it's a private script. But the factor which is important is if someone is prescribing it who's not their day-to-day practice, and they don't know how to manage the side effects involved with Ozempic, how to go up with the dosing, well that will reduce the success rates for that patient. So no, there's no training that we have available, but it will be good to be familiar with Ozempic, the side effects involved, how to manage the side effects, because there are very, very big limiting factors. The dosing that has been reported by the New England Journal of Medicine publication, Ozempic can be prescribed between the dosage of 0.25 milligrams weekly, up to 2.4 milligrams weekly as a maximum dose, for weight loss purposes. The Ozempic pens that we have available at the moment do not go higher than 1 milligram. So if someone needs to achieve the dosage of 2.4 milligrams, you would imagine that will be three injections per week. So it's a bit of a sort of situation that needs a bit of a familiarity with it, but there's no defined courses for it.

**Dr Tessa King (42:53):**

Yep, that's very helpful. We just wanted to know if there's any research to indicate micro or macronutrient deficiencies with Ozempic, given that it causes nausea.

**Dr Nellie Torkamani (43:07):**

So if Ozempic is prescribed and with the proper diet plan, and also with all the factors that limits the nausea, it certainly should not cause any micronutrient deficiency. There's no research that has looked into it, because when prescribed properly the rates of side effects are very low. So it shouldn't cause, for example, shouldn't cause vomiting at all, and the nausea should be very subtle. I would suggest that any patient that is going on a weight loss journey and aiming for high amounts weight loss should be on a regular multivitamin anyway, because of the restrictions that they might have in their diet choices and their medications and all of that. But generally there's no defined research about that.

**Dr Tessa King (43:57):**

And preconception advice for women taking GLP-1 agonists and similar agents, given most are contraindicated, what period of time should they cease before becoming pregnant?

**Dr Nellie Torkamani (44:09):**

That's a great question. So if they are taking Saxenda, liraglutide, that will be a month off their agent before they try for pregnancy, at least a month. And if they're on Ozempic, at least two months, because Ozempic is a bit more longer-acting.

**Dr Tessa King (44:30):**

And what is the weight loss per month that we should aim for with our patients, to achieve or advise them to aim for each month, and how can we help patients to stay at that goal weight once they've achieved it?

**Dr Nellie Torkamani (44:44):**

It's very variable patient to patient, and what they have as an underlying condition. So for example, if someone has high level of insulin resistance and fatty liver disease, the amount of weight loss that they might be able to achieve in the early days or first couple of months would be much less than the other person who doesn't have these conditions, because the metabolic rate would be slower. We would usually aim for around half a kilogram per week weight loss, as sort of a safe and slow but steady amount of weight loss. But it's very variable patient to patient.

**Dr Tessa King (45:23):**

And in terms of, how long can we actually use a GLP-1 agonist, and once a patient stops it, what does the long-term research indicate around weight management once you've stopped taking it?

**Dr Nellie Torkamani (45:35):**

Yeah, so I'll answer the second question first, before the first one. We don't have long-term research. The researchers are basically very short-term on weight. About 60 weeks is the maximum research periods that we've got available. There is some emerging evidence that if someone has had a great amount of weight loss, let's say 30 kilograms weight loss, it takes time for the body to reset their usual weight, for the body to reset its weight limits. And it might take up to five years even for the GLP-1 levels to reset. There was a study done on the participants of the Biggest Loser after they finished the show, and there was a 10-year follow-up, and all of them regained the weight. And they checked the GLP-1 levels, and they had very, very low sustained GLP-1 levels over the 10-year period. So it shows that weight and obesity is a chronic condition that needs chronic treatment, like hypertension. So that's one thing to consider. So it's not like we reach the goal weight and, okay, that's done. We need long-term management. With the GLP-1 analogues, they are medications that have been made for the management of diabetes, so they have been made for long-term use. So in general, there's no limitation in long-term use.

**Dr Tessa King (46:59):**

Just one more question. Which medications decrease insulin resistance?

**Dr Nellie Torkamani (47:07):**

Two main, well, a couple of groups. So metformin is the most common medication that everyone knows that would reduce insulin resistance, which plays a part in the management of weight loss in certain situations. GLP-1 analogues reduce insulin resistance, and yes, when we have GIP analogue that would reduce insulin resistance as well.

**Dr Tessa King (47:30):**

And what's the research around metformin for weight loss, particularly in polycystic ovarian syndrome? Does it help? What's the research around that?

**Dr Nellie Torkamani (47:38):**

That's a very good question. So metformin, based on the research, is called to be weight neutral. So it doesn't cause weight loss or weight gain, but it does reduce insulin resistance, and if used together with other medications for weight loss, it helps with the weight loss to happen faster. In polycystic ovarian syndrome, research shows that metformin helps regulate the ovulation and get more regular ovation, so actually increases rate of pregnancy. So there's very strong evidence around that.

**Dr Tessa King (48:16):**

I think we're done in terms of the questions. So it's time for us to wrap up. Thanks so much, Nellie. It was really informative. And thanks to everyone for joining us tonight. You'll receive an email once the recording is available to view on the Jean Hailes webinar library, and please remember to complete the evaluation if you need CPD points or a certificate. Our next live webinar will be on managing vulvovaginal candidiasis, and a link to register will be in the thank you email you received tomorrow. Thanks so much, especially to Nellie, and we look forward to seeing you next time.

**Dr Nellie Torkamani (48:54):**

Thank you, Tessa.

**End of transcript**

**Information about Jean Hailes for Women’s Health**

Jean Hailes for Women's Health is a national not-for-profit organisation dedicated to improving the health of all women, girls and gender-diverse people. For free, evidence-based and easy-to-understand health information, visit [www.jeanhailes.org.au](http://www.jeanhailes.org.au).

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