# Cardiovascular disease in women

**Dr Sonia Davison:** Good morning everyone and thank you for coming. Thank you for asking me to speak. When I went to the IMS meeting in Prague last year, yes, cardiovascular disease in women was a key theme, and I was really blown away that it really does seem quite different than that in men. So it's been really interesting expanding on what they were talking about and actually finding some Australian statistics as well. So have a look and see what you see. So the end result of cardiovascular disease that we're worried about is mortality, people dying. Also, governments worry about people getting sick and having to care for them, of course, and the cost, and we're continually reminded of that. So in terms of deaths, causes of deaths, and I'm going to take it back to men, this is looking at the causes of death in Australian men.

So you'll see ischemic heart disease, 15%, stroke and other cardiovascular disease. But when you look at it as a chunk, 29% of deaths in men are due to cardiovascular disease. Alright, so we're remembering 29% there for men. Have a look at women, then. Again, it's quite a considerable proportion. 13% of ischemic heart disease in women, and a higher percentage stroke, are killers in women. And then if you look at the percentage as a whole for all cardiovascular disease in women, 32%. So it's a higher percentage of women are being killed or dying of cardiovascular disease. So something to be very mindful of. And we often present this at community seminars, et cetera, but women all think they're going to die of breast cancer. And you can see the small percentage there that the cancer or breast cancer takes up. But women have this perception, 'I'm going to die of breast cancer', whereas really they're going to die of cardiovascular disease.

And what we learned from the International Menopause Society meeting, you can do a lot at the grassroots level for things like hypertension, et cetera, that will make a big difference, hopefully, to this percentage chunk of killers of Australian women. So this is 'burden of disease' and I don’t know if you know about DALYs, or 'disability-adjusted life years', but this is every year of well health or good health that you lose. Alright. So when you're looking at this, if you can see down in the purple and, sort of, bright blue chunks down the bottom there, ischemic heart disease and stroke. They do actually, I'm so sorry, there's a lot of morbidity associated with cardiovascular disease. So it not only kills women, but it's making them sick along the way and it's losing them good quality years of life. And don't we all want good quality years of life?

I certainly do, touch wood. So the cost. So the governments will tell us about the cost. And this was amazing, 1992 to 1993, that wasn't that long ago was it? 32% of all PBS benefits were spent on cardiovascular medications and that was 477 million. It looks like a drop in the ocean now. But look now, 2012, 21%, much less a percentage. I'm sure the government loves that, but 1.8 billion, billion, it's a lot of money. And I think that's money on hypertensive medications and statins, et cetera. And most scripts are for primary prevention. And really that's good, isn't it? Because if you're preventing then they're not going to have cardiovascular disease later. So I think we're doing the right thing, but it's extremely costly. So in terms of mortality, this is sort of general terms, but cardiovascular disease is the leading cause of death in women, and a third of all deaths globally.

And this is increasing in developing countries as well, whereas before they died of malnutrition and all those sort of things. And there's a high percentage of smoking in those countries now too. So big killer there as well. AMI kills four times as many women as breast cancer does. And the mortality rate from coronary artery disease, and I've got some lovely slides showing this, has declined quite a lot over the last three decades, especially in women and men over 65 years, but not in those younger women. So that's a real concern. And this is our target group, I think. Getting those women, they'll present to us typically around menopause, and it's good to grab them, find them and then screen them. So a big part of this is screening as well. This was some data from the US, and I'd love to see our data and we'd be someone who could actually ask about this, but the awareness that heart disease or coronary or cardiovascular disease is a killer, in the US in 1997, 30% thought that that was the primary cause of mortality.

And I actually think that's a high percentage. But in 2012 they reanalysed or re-questioned them and it was 55% thought that they were going to die of some form of cardiovascular disease. So the education is happening there and we've got to find out if it's happening here, I suspect. So this is Australian figures. The mortality rate from heart disease has decreased by 70% since the 1970s. That's enormous, isn't it? It really is amazing. The death rates in indigenous Australians from heart disease are 1.5 to three times higher than non-indigenous, which is terrible. And heart disease death rates in Australia are lower than other countries, but higher than in Japan. And there's a big, we'll talk about this later, but there's a nice, sort of, funny thing I can't work out in my mind and I hope you can work it out instead. So this is trends in cardiovascular mortality.

This is sort of our most up-to-date data. It's from between 2002 to 2011. There's a lovely, the National Heart Foundation has some lovely statistics if you ever want to read it. It is very interesting and there are some nice summaries in what is a big document. So you can see there, 'cardiovascular disease total' are the red bars at the top, so declining over that time. And that's actually not, that's recent history isn't it? So it's from 2002, it's not a long time ago. You can see ischemic card diseases, the sort of bar underneath that, and stroke is the bar under that. So declining, which is great. And this is global figures, it's a little bit hard to look, but the top figures are the ones who have higher mortality rates. They're all declining, which is great. And the two bottom lines, which are separated by a gulf there, are the lowest countries, and they haven't declined a lot but they're still declining.

So the top country, if you can see it from there, was New Zealand, quite surprising. And then there's US, Germany, Australia's somewhere there just at the bottom of the first thing. And then there's a gulf, and for some reason there is Japan and France down at the bottom. So when we see the smoking data in a little while, you'll wonder how that actually works. But there is a gulf and they're doing a lot better, those countries. And as you know, Japanese women typically live very long lives. So something there is working. So this is looking at age-standardised mortality rates for Australians for ischemic heart disease, not cardiovascular disease. On the left side, the left Australia is men and the right Australia is statistics for women. Essentially, how this slide works is, the darker it appears the more people are dying from ischemic heart disease, and it's very easy to see that the Northern Territory and Tasmania for men, there are higher death rates there, whereas Victoria and New South Wales are doing pretty well.

Women are very, very different though. If you look on the right side of the slide, Northern Territory is the highest death rate there, and Queensland and Tasmania are not doing so well, and Victoria's doing better than New South Wales in that regard. So there's still a lot of people dying out there and it is very different across the country. Do any of you go to rural places as well? Interstate and do stuff like that? I know there are some good people who do that sort of thing. So that's where we really need to be targeting. But the education can flow on no matter where that's coming from. So this is incidents of AMI, acute myocardial infarction, in Australia, and you can see men is at the top, men are still winning and it has decreased over that time slot. Women are the line at the bottom.

So cardiovascular disease in women, this is what I want you to start really thinking about, even if it's sort of slightly left of centre for your field. It develops later in women. So seven to 10 years later compared to men. And women, the only real thing I can see that's different, apart from anatomy and hormones et cetera, which we well know about, is that women have smaller and stiffer hearts and stiffer vasculature. So whether that correlates to risk, it probably does. The rates of AMI have increased over the last 20 years in women aged 35 to 54 years, so that's one of our target groups, compared to a fall in men of the same age. So really this is where we should be, and we can do a lot as a group here, really, at the individual level, but also talking to the community, I think, and to doctors, to talking to doctors. Because as a group of doctors or health practitioners, did you think that this was the case or did you sort of think that, women and men, cardiovascular disease is pretty much the same?

Well that's what I always thought, but this shows you it's quite different. And we think that the pathophysiology of heart disease differs in men and women for reasons that we really need to explore more. So when we are looking again at women, women are less likely to receive preventive treatment, so aspirin, lipid-lowering treatment and lifestyle advice, compared to men of similar cardiovascular disease risk. And I think that's because there's the perception that the woman is not as much of a risk as a man is. When medications are prescribed, treatment is less likely to achieve optimal results, and women are 55% less likely to attend cardiac rehab after an ischemic heart disease event. And that's because of caring. That's because they have families and roles and probably jobs and need to get back to something, they are needed, which is another issue, again. Women have a higher incidence of heart failure after AMI, and women have less left ventricular systolic dysfunction but more congestive cardiac failure.

So symptoms, this is a really important thing, and you'll probably sigh looking at this, thinking, 'These are very common symptoms and how do I know what's heart disease or not?' But women with coronary artery disease are more likely, they can have typical symptoms, but they're more likely to have atypical symptoms. So shortness of breath, back, neck and abdominal pain, indigestion, nausea or vomiting, palpitations and fatigue. So they're not very specific, are they? It's not the central chest pain with the neck and the arm. So you need to just think about it, and it's pretty easy to do an ECG or refer off for a functional test or whatever. Just think about it in someone, and look at their overall risk, and look at their family history, I think. But they are very atypical symptoms in some. So women delay seeking help, they don't go, they sit there and think, 'It's just a bit of indigestion, forget it.'

So one study, I thought this was scary and this was presented at IMS, 155.1 minutes from the onset of pain to emergency department presentation. That's two and a half hours. And what do they say, 'time is heart' or 'time is heart muscle'? There's a heart muscle problem there, it makes me shutter. Men weren't doing so well either, 134 minutes, but they were getting there quicker. So there's a delay. Women are usually older, and a higher incidence of comorbidities, diabetes, hypertension and other things. And there's a longer time to diagnosis, and there's also data that says when they present to emergency, they're triaged differently. It's not on the radar for the nurses to say, 'Might be cardiac, off you go'. Whereas for men, typical symptoms, 'Off you go, cardiac stream'. So again, that's another concern and we need to address that. So differences in treatment, women are less likely to receive intensive treatments for acute coronary presentations.

There's a higher prevalence of adverse outcomes, such as bleeding after reperfusion. Higher rates of cough on ACE inhibitors, and higher rates of oedema on calcium channel blockers. But calcium channel blockers are better for systolic blood pressure reduction. Bleeding is more frequent on anticoagulants or antiplatelet agents. Aspirin is more effective for stroke for women compared to men. So that's interesting as well. And in those who discontinue medications after AMI, there are lower one year survival rates. And older women are much more at risk of discontinuing treatment. So it's dismal, isn't it? That slide was dismal. And you know what that slide actually means? They stop their treatment, lower survival rate, they're not going to take it, are they? They hate it, it was awful and it made them cough and swelling ankles and whatever, and they don't take it, which is a trouble. And that's where we really need to work with them closely, because there are other options, and it's education and it's saying, 'Let's try something else', that's very important here.

So women have less obstructive coronary artery disease. So the typical thing is, in a man, there's a plaque in the wall of the artery that has a tear in it and that's where the blockage appears, in the wall of the artery. Well, in the lumen. Women, we saw some nice pictures at IMS, they actually get more deposits within that wall. So you can do an angiogram, see pretty clean coronary arteries because that's actually looking at the middle of the lumen, but actually they might have a lot of blockage developing around the wall of the arteries. So that was very interesting as well. They tend to have preserved systolic function, more cardiac failure as I mentioned before. And the functional tests do not often, so if you do the angiogram, they've got pretty normal arteries, the functional test may actually say, oh, there's a lot of ischemia here. So the functional tests are very important. There's more vasospastic disease as well, and higher rates of coronary artery dissection. So it is quite a different disease in women compared to men. So looking at the risk factors, hypertension, the biggest thing I got from the IMS meeting,

I think, and Liz might agree, is that, treat hypertension. Hypertension is an enormous risk factor in women and it's pretty easy to treat it. So one in five Australians has hypertension, one in four indigenous Australians, more than 50% of Australians over the age of 75 have hypertension. Higher rates of congestive cardiac failure and stroke in women with hypertension compared to men. There's also a link with hot flushes and hypertension. So those who are having hot flushes around menopause, much more likely to have hypertension. So at some vascular level there's something going on there. Women with the same degree of hypertension have a higher cardiovascular disease mortality compared to men. And that's because throughout life they've had quite a low blood pressure, and when they're exposed to hypertension, maybe after menopause, it's a big difference. So that's a key thing as well. The same degree of hypertension but higher cardiovascular disease mortality, have a think about that.

3-fold higher mortality with hypertension, and hypertension tends to be less well controlled in women compared to men. So treating hypertension. Much higher reduction in coronary events by optimal control of blood pressure in those with metabolic syndrome compared to men. And less regression of left ventricular hypertrophy in women as well. Type 2 diabetes, as we know, is increasing in prevalence. It's more than 5% of Australians, and 5% are thought to be at risk of it. And I think those figures are much higher than that. Type 2 diabetes is a much stronger risk for stroke in women. And in combination with hypertension, have a look at the relative risks for death there. 4.57 for women compared to much lower rate in men, versus hypertension alone, that risk for death is 1.89 in women. So they're a double whammy. Diabetes, hypertension, cardiovascular disease, way up. I'm depressing you, aren't I?

It's all right, we're good. We are heading with, this is important, we've got to know this so we can do this and help women. We're going to do it. This room is going to help a lot. So a third of Australians have high cholesterol levels. Around four in five Australians with high cholesterol or triglyceride are not receiving treatment, and there's a lot of debate, and then there's shows such as Catalyst which said, 'Well actually it's just a big furphy, you don't take the stuff and the stuff is going to hurt you anyway.' Differential effect on response to statin treatment has been debated. So some say it works in men, not in women. But a meta-analysis of statin treatment, and this is fascinating, for each one millimole reduction in LDL cholesterol, so that's one millimole, 21% lower risk for major cardiovascular events and a 9% reduction in the risk of death.

So it does seem to be quite effective. 12 cardiovascular events avoided in men and nine events avoided in women, for every thousand treated over five years. So if people say, 'I don't want my statins', and more or less you're looking for secondary prevention, but some do need it for primary prevention, you can now quote that, that's easy. So weight excess is another risk factor. 55% of Australian women are overweight or obese, 66% in men. Frightening, isn't it? Indigenous Australians have more than double these rates. Well it's not, we can't, because there'll be 110% there. They have a high rate. I think it was about 64% all up. The impact of obesity on the development of coronary artery disease appears to be greater in women compared to men. And the Framingham study, which is a big study looking at a US population, and you're probably aware of this, but they don't move much in Framingham.

They sort of sit there as a population, and a big study was started many years ago and they've sequentially reviewed them over time. So we've got some really great population statistics to a population that doesn't traditionally move. So 64% increase in risk in that study, versus 46% in men, Cigarette smoking, 14% of Australians, Australian women, are daily smokers versus 18% in men. I actually think that's amazing compared to previous levels. And I was sort of bit, bit of a proud thing, when I went to the IMS, there was a Spanish lady who got up and said, '35% of Spanish women still smoke', which is enormous, isn't it? Indigenous Australians do have more than double those rates. And women greater than 45 years, cigarette smoking has a 25% increased risk for coronary artery disease compared to men. So huge big risk factor. The prevalence of smoking, here. Never smokers 59%.

I think that's great. Daily smokers, 14%. And some people are doing unusual things with smoking and just sort of take it up every now and then. This is the global rates of smoking, and you can see women are the darker bars, and this is by country. So Australia there is to the left, and we're not doing too badly, but have a look at France, Germany, Netherlands and Sweden. Those countries is still a high proportion of smokers. But have a look at Japan, those rates are very low. But remember I said before, it was interesting with cardiovascular mortality, and there was that gulf between Japan and France and the other countries, well look at France, highest rate of smoking. So there's something there in France that's somewhat magical, and maybe we should all go and explore that, which would be very fine, wouldn't it? We in an IMS meeting in France. So exercise, this is Helen's area of expertise and I'm going to love to hear her thoughts on all of this later.

58% of Australians don't do any exercise or have low levels, and indigenous Australians, again, it's not more than double that rate. I'm sorry about that. It's about 68%. Okay. They're not doing anything really. The prevalence of no or low levels of exercise is higher in women compared to men. And the recommended levels, at the very least, 150 minutes per week of moderate exercise, if it's more intense exercise, it could be less than that, and that's about 20 minutes a day. It can be done. It's not being done, but it can be done. I won't even start talking about dogs yet. I'll do that later. So this is physical activity by region in Australia, and you can see that no or low exercise to the left of each state or territory is red or the dark brown bar, and high levels are sort of in a yellowy-orange colour.

Well, we are not really doing high levels of activity. Victoria's looking a bit shabby there, and the only real thing I got out of that was the ACT. They're doing higher levels of exercise. I think that's because they're a young population working in the public service to the most part, and that's the focus there, is, exercise is important. But we can do much better on that, especially with the no or low exercise. Diet. Fewer than 10% of Australians meet NH&MRC targets for vegetable consumption. The rates, this is a real clanger, the rates of risky alcohol intake are not in your 20-year-olds, but highest in the 55 to 64-year-old age group. I had one lady presenting the other day with alcoholic cirrhosis, and she'd had two bottles or more of wine per day for some time.

So they just do it, it's just a social thing, it just happens and it just sneaks up on them. 10% of women consume alcohol above safe range. And we can intervene, there even just a little, even if you reduce it just a bit. Little tap on the wrist or a bit of education. So what has menopause to do with it? Because a lot of our focus is about menopause. Increased risk of cardiovascular disease does tend to occur after menopause. And a lot of research has focused on the role of oestrogen, and the potential effects of having that oestrogen level lower quite dramatically after menopause. Endothelial dysfunction, and we know the endothelium is very important in things like diabetes and heart disease. Loss of arterial compliance, so stiffer arteries, and also microvascular dysfunction as well. So this is again from the Framingham study. It was really the first thing that showed, well there is a difference between pre and postmenopausal women.

This is women in each age group who are exactly the same age, and the blue bar is premenopausal and the brownish bar is postmenopausal. So for women of exactly the same age, those who are postmenopausal have a higher risk, or a higher incidence, of cardiovascular disease. And this was the first study to point that out. So when we are looking at MHT or HRT, it's now being called 'menopausal hormone therapy' or 'HT hormone therapy'. Observational studies have suggested that MHT conferred a cardiovascular benefit. So they were the original studies that went back and said, oh, to the ladies, 'Were you on HRT?' Not a prospective, let's do this study on MHT and whatever, placebo controlled. But there was a selection bias in those study. Women who were healthier, more likely to go to the doctor, the doctor might be more likely to say, 'Oh, why don't you take some HT for your menopausal symptoms.'

So there was a selection bias in those studies, that those who were on MHT were thought to be healthier at baseline anyway. Subsequent studies after that were designed to try and explore what actually is that effective of MHT, doing it in a placebo-controlled study and doing it in the right population and following them over time. So I'm just going to go back to HERS. Do you recall the HERS study? So this was the first placebo-controlled study in women with heart disease. So they had heart disease already. 2,700 women, average 67. So when you want to study heart disease, you really do need to study older women, because they're not going to have much heart disease in the fifties or so. They had conjugated equine oestrogens, and if they had a uterus they had medroxyprogesterone acetate versus placebo. They had favourable effects on lipids, which was a great thing as we've just heard.

But a 52% increase in cardiovascular disease events in the first year. But at the end of the study there was no difference between groups. So you can all-up say, 'Well it didn't hurt them', but there were a lot more having events and dying in that first year. And this is women with heart disease. And there's a lot of criticism about this study. And there was an increase in VTE. So that led to the WHI study, which thought, well we've done that in women with heart disease, let's explore this, the same medications again in women who don't have heart disease. So it was, by design, an older population, so not a 50-year-old average. It was a 63-year-old average, but they were up to 79 when they were started on treatment, which was pretty amazing isn't it? Just giving someone MHT at 79.

Again the same medications versus placebo. The MHT group had a 29% in coronary heart disease events soon after randomisation. So like the HERS study showed, but it was an increase of seven events per 10,000 women years. So it wasn't huge, but there was an increase. 41% in stroke in the first two years. But again, that was eight events per 10,000 women years. And an increase in VTE was also seen in that study, as you know. So what they did from that, they tried to say, 'Right, that's an older population. Let's try and get the younger women, women within 10 years of menopause or women from 50 to 59 years, and see what happens to them.' And I'm trying to focus in this slide, you can see to the right of the line in the middle of the slide, there's a benefit, and to the left of the slide, the left of that line, there's a risk.

So you can see for risk factors such as diabetes, both oestrogen-only, which is in black, and oestrogen and progesterone, which is in white, there's a benefit there. And what this is, this is what's called a 'matrix' from all of the major studies of MHT. They've got that together and made this as a sort of a combination thing. It wasn't just one study contributing to this data. Overall mortality, you can see that they're dying less. And coronary heart disease overall, you can see they're doing better on oestrogen-only, but they're also doing better on the combination. Where the difference is, there's an increase in stroke for both types of MHT and VTE as well. So very different story. And this slide shows that a bit more. In terms of WHI studies specifically, there's three groups here.

The first group is the 50 to 59, middle group is up to 69, and the group on the right is up to 79. And the top graph is the combination of conjugated equine oestrogens and medroxyprogesterone acetate. The bottom group is just conjugated equine oestrogens. So you'll see there a very different story for the 50 to 59-year-old group, hardly any increase in coronary heart disease and stroke, which is the sort of darker grey and the light bars, compared to, you can see very nicely pictorially, that it really increases in those older women. And really, look at conjugated equine oestrogen on the bottom for that group, it's lowering. So there's some very important key messages here, and we need to know this so we can tell women about it. And often so we can talk to cardiologists about it, because they often don't understand and get this, and sometimes you'll need to have an interesting discussion with them, when you think someone needs MHT.

So this is the IMS global consensus statement. A really lovely consensus statement, still relevant. It's from 2013. There's an updated one, but I love this one because it's 13 points in total and it very nicely picks out where the benefits and risks of MHT. So this is point 3 here, which is why I've labelled it '3'. Oestrogen-only MHT may decrease coronary heart disease and/or cause mortality in those younger women around the time of menopause. But oestrogen and progestogen MHT, a similar trend for mortality, but most randomised controlled studies, no significant increase or decrease in coronary heart disease. So a difference there. But all-up the story is pretty good isn't it? It's not a bad story there, and that's a very nice way to look at it. This is just looking at coronary heart disease. So again, to the right, observational studies at the top, you can see there was a benefit, versus the placebo-controlled studies on the right showing a risk, and stroke similarly, and PE, enormous. From one of the original investigators of WHI, there.

So this is what I really wanted to hark on in terms of using MHT or prescribing MHT or understanding what it does. This is conjugated equine oestrogens. It's not just one product. There's a lot of different things, and there's more things that are not even mentioned on the slide. There are some progestogens and some androgens in conjugated equine oestrogens. There's a lovely paper I can refer you to if you want some nice bedtime reading or if you don't sleep well, you might sleep after that. So in terms of what's in conjugated equine, this is the main constituents, 49% estrone, 22% equilin. You never heard of equilin did you? 4.5% 17-alpha-estradiol. Whereas our main oestrogen before menopause is 17-beta-estradiol, and I am going to turn here and show, and that's less than 0.1% of this product. So most other MHT products are pure oestradiol, the oestrogen that we make before menopause.

So there's a huge difference between this compound and between other MHT products. And there's lots of stuff in there. And we think one of the WHI investigators talked at IMS, he thinks that there's a SERM within this product, a selective oestrogen receptor modulator, as well, within these compounds, that might actually be explaining some of the difference with this product. The other thing is progestogens are all very different, and one of the key things from WHI is progestogens do different things. Progesterone. This is the same as what our body's progesterone is, but we've typically used medroxyprogesterone acetate. And in Australia, I think, more norethisterone acetate, and we are using more of the levonorgestrel IUD as well. Whereas the progestogens that are close to body's progesterone are just natural progesterone, which is the micronised progesterone product now, and drospirenone, they're very close to our body's progesterone.

So the more recent studies have focused, they've tended to go away from conjugated equine oestrogens, and they're focused on oestradiol for the oestrogen, and they're focused on progesterone, pure progesterone. So the ELITE study is a study trying to tease out what oestradiol does, early versus late postmenopausal women. So these women were typically three years around menopause versus 13 years. So it was more than 10 years, but it was an average 13 years. And it was a five year study. And now because we can't really look at outcomes and events, you have to look at a surrogate marker. So they've looked at the rate of change of carotid intimal medial thickness. They gave 17-beta-estradiol, it was a modest dose, one milligrams versus placebo. And those who had a uterus had vaginal micronised progesterone gel. I don't know why they used this gel, but it was a 4% gel totalling 45 milligrams,

very different from the product we have here now, for 10 days per month. And it was, remember HERS, 2,700 women, oh, I'm so sorry, I'm getting ahead of myself, versus WHI was 27,000. This is 643 women. So we just can't get the numbers anymore to do these big studies and I don't think we ever will again. This is showing, and it looks very modest, but what it's showing, the top is the late post-menopausal women. So those on placebo are at the top blue bar, and then there's the hash bar there. So the top ones are post— So the good thing there, there's no difference. Putting these later postmenopausal women on oestradiol didn't make any difference to their carotid artery intimal medial thickness, which is good. It didn't make it worse, is what I'm trying to say. But the early postmenopausal women, those within three years, it was average three years after menopause, there's a divide there.

And again it doesn't look exciting, but it excited a lot of people around the world. Those on treatment, who are the bottom hashed blue bar, they actually stayed pretty static. There was no increase in carotid artery intimal medial thickness. Whereas it did progress on those on placebo. So there was actually, the oestradiol was raining it in, stopping that carotid artery intimal medial thickness from developing, and potentially giving them a cardiovascular benefit down the track. So there's this window of opportunity, treat women around menopause with MHT and we think they're going to get a cardiovascular benefit, whereas do it a lot of years after menopause in an unhealthy population, and yes, they are going to be at risk and have events. So this was very interesting and set the whole world on fire, such that Anna Fenton and Nick Panay did an editorial here, 'Hormone therapy and cardiovascular disease – are we back to the beginning?'

Which is sort of exciting, because at least we'll probably agree, we needed to return to the beginning. We'd been too long in a trouble with MHT and cardiovascular disease and other things. So it's a very exciting development. So the health practitioner role, this is where we come in. So now you know about all of this, and you did before, and I know you did as a group, but others need to know this too. We need to aware that that cardiovascular disease risk increases from midlife, and be aware of it, because what you can do at midlife, I think, really makes a difference to what the outcome is much later on. Family history is very important, and taking good family history, we're all pretty good at that, I think. Smoking, we need to ask them. And we need to question people, because sometimes they say something and it's not actually apparent.

And I've had ladies coming back to me the second or third visit saying, 'Well, I told you I didn't smoke but I actually do smoke.' And I thought, well, I thought you did smoke, but let's just talk about it. So it's just trying to keep the doors open so you hear about these things. Alcohol use, very important, diet, exercise and menopausal symptoms, because that's what they might be coming for, and they might have more hypertension if they're having symptoms. Weight and waist circumference are important. It's not always timely to do a waist circumference, but definitely do a weight. Screening, blood pressure, blood glucose, lipids and ECG if you think it's appropriate. And there's a nice risk factor, the Australian Absolute Cardiovascular Risk Calculator, which I think you can do with patients in front of you. I think that's more the utility. And I'll show you that in a minute.

Education's very important, and saying it in a way that they'll understand and make a difference. Optimising blood pressure, lipids, blood glucose, lifestyle and medication. I mean, you know all of this, this is what you do every day, but it's just trying to maybe be aware that we need to push it a bit stronger. Referral for functional testing if you think that's needed. Resources, giving something to the lady to take out, because they've got, what, 10, 15 minutes with you in the appointment. It's not enough time. And cardiological review if you think that's appropriate. If it's normal, then that's fine, you've done the right thing. So this is the Australian Absolute Cardiovascular Disease Risk Calculator. I just googled this and then I pretended I was 66 with a systolic blood pressure of 150. I had a total cholesterol of 6, I was a smoker and I had no diabetes, and I did have LVH on an ECG. And this will give, you pop that in.

So I don't think patients can really do that. I don't think that's, they could, but I don't think they have all those figures to hand. I think this is more useful to put it up on the computer, tap it all in, and then say, 'This is your risk.' Because I think that red bar there with the 19% actually looks scary, doesn't it? And it might affect a change. And some things you'll put into this schedule and it'll just say instantly, it won't go on, it'll say, 'You are already at cardiovascular risk', such as older age and whatever. So this is a nice thing you can do that might visualise it if they're not taking their anti-hypertensive or whatever. Let's have a look at this. And it's a very easy web-based tool. And it's Australian. So there are resources for consumers. The Jean Hailes has a wonderful website, as you know, but cardiovascular health is on there with screening, investigations, what this means and the rest of it, in a very easy to read format and that's, you know that, and you're already doing that. And there's also Heart Foundation has a number of resources. This one's more New South Wales specific. There are only New South Wales addresses on the back. But I think everything until that is pertinent to all women. And I'm not sure why there's not a Victorian address thing on the back, but that's a really nice leaflet that you can get online pretty easily.

End of transcript

Information about the podcast

This podcast series has been made possible by the NSW Government's Menopause Awareness Campaign. For help talking about menopause, download the [Perimenopause and Menopause Symptom Checklist](https://www.jeanhailes.org.au/resources/perimenopause-and-menopause-symptom-checklist) and take it with you to your next medical appointment. For more information visit: <https://www.nsw.gov.au/women-nsw/toolkits-and-resources/perimenopause-and-menopause-toolkit>

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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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