

CRUNCH BITES PODCAST

BITE SIZED CHILDREN'S NUTRITION INFO

Season 2 Episode 3: Eat, sleep, move repeat with Dr Jazzmin Zheng

Mikala: Hello and welcome to Crunch Bites, a podcast for parents where we discuss all things children's nutrition and inspire you to build those healthy habits in the home. Join us as we chat about reading food labels, cooking with kids, understanding ultra-processed foods and so much more. Brought to you by the Crunch and Sip team at Cancer Council WA and presented by qualified nutritionists. This podcast is packed with goodness and full of fresh ideas.

Hi everyone and welcome to our podcast Crunch Bites. My name is Mikala and I'd like to start by acknowledging that I'm recording from Whadjuk Noongar country and also acknowledge that you may be listening from other parts of the country.

So welcome from wherever you are dialling in. I'd also like to pay my respects to all Aboriginal people living and working in this area and acknowledge Elders past, present and emerging.

Today's episode is brought to you by fennel, which is a very flavoursome, typically winter vegetable that can be enjoyed both raw and cooked. The leaves of a fennel bulb have a very subtle dill flavour, whereas the white base has got a more distinctive aniseed flavour. Personally, I love finely slicing my fennel into a green salad for some crunchy pops of flavour. So today we welcome Dr Jazzmine Zeng. Jasmine is a researcher at the Institute of Physical Activity and Nutrition and is currently looking at the role that different factors play in determining healthy growth and development. So welcome Jasmine.

Jazzmine: Hi Mikala. Hi everyone. Thank you for having me.

Mikala: So, I thought it would be good to start off by having you just tell us a little bit about yourself and about your background.

Jazzmine: Yeah, I'm a dietitian and nutrition epidemiologist by background and have been studying the changes in diet and other lifestyle behaviours such as exercise and sleep and the role in physical growth and health in children for almost 10 years.

Mikala: I've been looking over some of the research that you've been doing. It's a big project. It's very, very complex and certainly having the duration of time with which you've been looking at it is really beneficial because it's definitely showing some fascinating trends and some recommendations which we can kind of nut out a bit today. But in looking over

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some of your research, my sort of summary of it is eat, play, sleep. It's like this really interesting co-relationship and interplay between those three factors and how that connection feeds into that sort of growth pathway for children, but also for the family as a whole. Is that, would that be a kind of a fairly okay summary?

Jazzmine: Yeah, that was a fantastic summary of all my research. Thank you Mikala.

Mikala: Wonderful. So, I think it would be really interesting in breaking this down for our listeners to talk about food, to talk about movement and to talk about sleep. So if we start off with food, in your research I noticed you talk a lot about the sort of the diet changing in the early years. You know, is this mainly the sort of transition from mush to meals in terms of timing or what is the research showing? What are some of the things you've come across?

Jazzmine: Oh yes, like we look at how diet changes from infancy to childhood, including the transition from the meal-based diet, such as breastfeeding, formula feeding to introduction of solid foods and then to a food-based diet. So basically, from mush to family meals. We also explored how diet quality and various components of diet, including fruits and vegetables and energy-dense and nutrient-poor foods or specific nutrients, how those change over time.

Mikala: Yeah, okay. So, you're looking at that family plate experience, aren't you? That starting off with the sort of early introduction, but then also the evolution into how the family eats as a whole. And so, it's that nutrition picture, you know, across all members really, isn't it?

Jazzmine: Yeah, that's right. And we found children, they actually show very consistent dietary habits from toddlerhood all the way to childhood. For example, child with a low diet quality in toddlerhood, they remain to have a low diet quality when they reach childhood. Also, we found parental influence play a huge impact on kids' diet as well.

Mikala: So, what about the impact of the food environment? Because, you know, there's such a prolific availability of baby and toddler foods now. Did you look at how that's impacting this picture as well?

Jazzmine: Yeah, absolutely. We found like various family-level factors or maternal or parental factors that are associated with child dietary intake. For example, the parental body weight status, dietary habits and cultural background, they all influence what our kids eat via parental modelling of behaviours. And also parents play a key role in home food availability and home food environment. So that also influence the dietary intake of our kids.

Mikala: And I mean, if I reflect on when my kids were young and what was available to sort of support and supplement that feeding journey from mush to meals, I just feel like we did a lot of things sort of from scratch or with whole foods. So, we just grabbed a banana and mashed it with a fork. Whereas it feels like now the supermarket shelves are full of all these

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sort of, you know, foods in inverted commas that really impact and change that feeding journey at a very early age. Would you say that's a fair thing to say?

Jazzmine: Yeah, yeah, absolutely. Like back in the olden days, we probably all cook all the infant foods from scratch ourselves. But because of the busy lifestyle that we have nowadays, we're more leaning towards commercial packaged infant and toddler foods for convenience. But we do realise the quality of some of the infant's food are not that great. Most of them are ultra-processed and mainly dominated by fruit purees. So, it's very important for parents to be aware of the high sugar content of the ultra-processed infant toddler foods.

Mikala: And what about the breast milk versus formula discussion? Do you see trends or what are the recommendations there when it comes to which source of milk parents are leaning on for their children?

Jazzmine: Yeah, in Australia, we're actually doing quite good in terms of initiating the breastfeeding. So, the recommendation, and also based on the scientific evidence that we have looking at the impact of breastfeeding on later health, we do recommend all the mothers to breastfeed if they can. But if breastfeeding, it's not possible, formula feeding, we suggest parents to follow the best practice formula feeding. Probably not many parents, they are aware that the high protein content in infant formula can predispose the kids for having a less favourable growth trajectories and higher risk of obesity later in life. So, we suggest parents to choose an infant formula with a lower protein content, if possible, and follow the instructions on the pack on how to prepare the formula and etc.

Mikala: Yeah, because I noticed in your research, you found some trends between formula feeding and rapid weight gain. And so that would be if those recommendations and feeding guidelines aren't followed, is that correct?

Jazzmine: Yeah, so we found children who were breastfed versus formula fed or children who breastfed for longer compared to those who were breastfed for shorter duration, they're less likely to have higher body weight status in childhood.

And apart from the benefit of breastfeeding on physical growth, there are also other benefits of breastfeeding that we should know is like the breastfeeding that can help our kids with the immune system development and also cognitive function as well. So it's important for us to promote breastfeeding when we can.

Mikala: Yeah, understood. And I mean, it's great that formula is a reality for those parents that don't have a breastfeeding option or where the journey is a little bit more complex, but agreed. I mean, and also that lovely bonding experience as well. You know, breastfeeding my bubs was a privilege. It was a lovely thing to be able to do. Yeah, so it's really interesting. There's quite a lovely co-relationship there between that sort of feeding journey for the child and the whole of health picture for the family as well, which I suppose has a similar story when we start looking at movement as well, you know, because it's not isolated to just the child. There's some interesting trends there. So, let's talk about that a bit more in your research. What are some of the trends you're noticing around movement?

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Jazzmine: Yeah, so first of all, similar to the child's diet, not many people are meeting the recommended guidelines. And in Australia, we do have a 24 hour movement guidelines for children from infants all the way to children and adolescents. And depending on the age group, the recommendation are slightly different. And we also have sleep recommendations as well.

Mikala: Yeah, because I imagine that their relationship between movement and sleep is quite closely connected in so much as, yeah, obviously movement burns energy and burning energy leads to being tired and then being tired leads to, you know, it's conducive to sleep.

Jazzmine: Yeah, like most previous research has focused on looking at like diet, physical activity, or sleep individually and how they impact our health. However, in real life, as you just noted, these behaviours, they actually do not occur in isolation. And they're in connected and they influence each other. Like for example, in the 24 hour in the day, if we spend more time in sleeping, then we will have less time for eating or doing exercise. And we also see particularly in children, we actually see a trend for the kids, they're more likely to consume unhealthy energy dense and nutrient poor foods when they watch TV. Yeah, so it's important for us to consider all those lifestyle behaviours together.

Mikala: And the growth of screens, I'm sure is incredibly impactful, because it's not just TV anymore, it's devices. And it's also the reality of that being streamed on demand rather than, you know, isolated pockets of viewing. Is that something that you've looked at in some detail?

Jazzmine: Oh, yeah, yes. Like even as a parent myself, I found now the generations they could not live without a screen. And even for some of the educational activities from school also involve screens as well. So, we as parents, it's very hard to control our kids, the screen time. But I think as parents, it's very important for us to be aware of the harmful effect of excessive screen time on our kids' health and development. So, it's important for us to have set parental rules around how long our kids can be on screen. Like, for example, for the 24-hour movement guidelines that we have, we do have recommendations for the sedentary behaviours, like including the time engaged on the screen. So, in general, like for younger kids, like babies all the way to preschoolers, we want to limit the screen time to less than one hour per day. But then for older, like children, adolescents, it's less than two hours per day if possible.

Mikala: And what are some of the flow-on effects of moving more? I mean, obviously, getting kids outside has all these other benefits, doesn't it?

Jazzmine: Yeah, like from my own experience, or even from my research, I can tell for kids who are more physically active, they tend to have a better appetite. So not necessarily saying they might have a better diet quality, but it would definitely increase their appetite and make them eat more, probably have more room for healthy foods. And similarly, they would be more likely to be sleeping better at night. In the research, we actually found kids, they actually form different lifestyle patterns as early as age 18 months. Like what we mean by patterns is we actually see children, they form into a healthy pattern with intake of healthy foods, including fruit and vegetables, and then be more physically active and have better sleep. So, we also have children that they have an unhealthy pattern, which had all the unhealthy behaviours, like unhealthy diet, less physically active, more screen time and

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poor sleep. But of course, we would also have children that they have a mixture of those behaviours, that's very common as well.

Mikala: Yeah, it's such a, you can start to really get a sense of the interplay as you're talking about it and how that full picture really requires awareness by parents of how it all does form, you know, the one reality for the child, rather than they're not isolated events, like they are so interconnected. Yeah, you know, even if I think about my kids, a really healthy appetite at dinnertime always led to eating more of the foods that are on offer that I want them to be eating, you know, so move, you know, moving more, sitting less, eating better, sleeping well, you know, that sounds like a happy household to me.

Jazzmine: Yeah, absolutely. So, we as parents, it's very important for us to be modelling all these healthy behaviours for our kids. If we follow a healthy lifestyle, they're more likely to follow that as well. And particularly for young kids, we actually get to decide what to put on their plate. And similarly, we get to decide what's in our pantry. If we can offer more healthy foods for our kids, they're more likely to eat healthy and trying to avoid buying energy-dense and nutrient-poor foods and snacks, limit the food availability of those food at home will also help as well.

Mikala: Yeah, absolutely. And so, what are some of the ways that parents knowing that, you know, moving more and that physical activity is one of these three pillars and has such a positive impact? What are some of the ways that parents can include more physical activity into their children's day?

Jazzmine: Yeah, that's a great question. I would say incorporate, try to incorporate physical activity into the daily routine and try to find the activity that the entire family enjoys. Because we're all very busy parents and even the kids have lots of activities these days. Some of the strategy that I found quite useful is like, for example, trying to walk or bike to school if it's safe and feasible. I often involve my kids in active household chores such as gardening, sweeping, vacuuming, and also plan family outdoor activities after school on the weekends such as hiking, biking, or taking them to playgrounds and parks. And also encourage other physical activity if you can, like trying to know your kids a bit more to see what type of activity that they enjoy.

Mikala: Yeah, I love this approach because it's not necessarily going to cost money or needs to be very structured. And it's got this lovely fluidity week in, week out in that it can sort of take shape in whatever is going on in the household or what's the interests or flavour of the month at the time. In our work, we often talk about this concept of the fact that it all adds up, you know, that little bite-sized bits of movement across the day, they come together as a full picture. I think that's something that you have made reference to in your research as well, isn't it?

Jazzmine: Yeah, absolutely. Like, for example, people might be thinking, oh my God, the recommendation asked us to have at least one hour of like moderate to vigorous activity in the day. That sounds way too much. But actually, as you said, if we break it down into short blocks of time, like 10 minutes in the morning, and then another 10 minutes at noon, and then another 10 minutes at the end of the day, and every minute counts.

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Mikala: Yeah, absolutely. And I think it's also really important with the sedentary nature of the schooling system and just lifestyle these days being more, you know, there's much more sitting than there once was. I think it's so important to bring in that healthy habit of movement in that sort of bite-sized format for the younger child as well, because obviously they, you know, tire easily, get bored easily, lose interest quickly. So, it's definitely a good approach, I think, for embedding those healthy habits.

Jazzmine: Yeah, absolutely. Apart from the beneficial impact of having a healthy eating and active living lifestyle, apart from the impact on their growth and development, the impact is on our mental health as well. Like our research found children who has a healthy lifestyle pattern, they're less likely to have emotional behaviour problems. They can regulate their emotions better, and they can perform better academically as well.

Mikala: That's really interesting. And as well, I think some of the things I've read recently about being outside and sunshine and vitamin D, and obviously, you know, being mindful of being sun smart, but also the sort of nature bar concept, you know, the flow on effect of being in nature and getting vitamin D, you know. So, it's, again, it's so complex. There's such an interplay, isn't there?

Jazzmine: Yeah, yeah. Like improving one behaviour will always have flow and effect on other aspects.

Mikala: Yeah. And so that kind of brings us to the third factor, which is sleep. So, for parents that are listening, what does a healthy sleep pattern look like for their child?

Jazzmine: Yeah, I would say, even though our dietary guidelines have different recommendations for the duration of hours that the kids should sleep in a day, like at night, but every child are different. And that's the reason why the recommendation always provide a range rather than the specific numbers. So, I would say as long as your kids, they can fall asleep quickly, and they stay asleep through the night, and when they awake, they're alert and feeling refreshed, then we consider that they had a good quality sleep.

Mikala: That's really helpful, because that's an easy thing to measure, whereas trying to actually keep a track of hours of sleep, I think would be very stressful for a parent. And as you say, it's not a cookie cutter model, because each child, even in your family could have different needs, couldn't they?

Jazzmine: Yeah, absolutely.

Mikala: So, if parents do feel concerned, and they are noticing that their child is actually waking up quite sluggish or seems to be low on energy, what are some of the ways that parents can improve a child's sleep patterns?

Jazzmine: Like, for example, like what we just touched on, physical activity. Incorporate more exercise or physical activity into the day, that will definitely help. And also think about the sleep hygiene as well, like what is the current sleep environment for your child? Does your child have consistent bedtime or wake-up time? Because we know that we actually have an internal clock within our body, so it's important to train our body to follow that

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rhythm, to find out the best sleeping pattern for ourselves and for our kids. And other things to think about is trying to avoid some of the vigorous activity or screen time before bedtime, because that also trying to create a sleep conducive environment, have the right temperature and dark, have a room that's dark and quiet, consider using blackout curtains or building a bedtime story. And as I just said, trying to limit screen time at least one hour before the bed, as a blue light can disrupt our body's production of melatonin.

Mikala: I was just going to ask you to expand on what melatonin is, because I know that's something parents hear a lot about, but they may not know what exactly is melatonin.

Jazzmine: So it's actually a sleep hormone that make us sleepy.

Mikala: Ah, interesting. Okay, so certain behaviours can actually enhance the production or reduce the production of that hormone?

Jazzmine: Yeah, like I mentioned, if you have excessive screen time, like the blue light through the screen, that will lower our body's production of melatonin and making us more excited and awake.

Mikala: So, the, you know, classic kind of age-old practice of jumping up on the bed with your kids and getting a storybook out and, you know, quieting the room down and drawing the blinds. It's all very intuitive, but it actually has a really powerful biological impact then, doesn't it?

Jazzmine: Yes.

Mikala: Fascinating. It's definitely a very complex space once children are a little bit older and entering those teen years. I think that it was far easier for me when I had little people and I could guide them and direct that space. And now I suppose the important process is to educate teens and, you know, children as they're kind of becoming more independent about what that sleep conducive environment looks like and how they can recreate and prioritise that for themselves as well.

Jazzmine: Yeah, like for older kids, we definitely can help to raise their awareness of the importance of sleep and what does the sleep conducive environment look like. Yeah, so they will have more control in their own sleep routines. And for the other thing to mention is for older kids, we'll be trying to avoid large meals and also watch the intake of caffeine. So, there are lots of hidden caffeine in energy drinks and soft drinks. So, it's important for us to educate our kids about all different foods and then how that impacts their sleep patterns.

Mikala: Yeah, absolutely. And when you think about the studying environment and the fact that that's often late night and that teenagers are absolutely, you know, terrible for going to the pantry late at night and piling food into a bowl. So yeah, really good advice, really good practical advice there that you can give to them that, you know, keep the food light, avoid the caffeine, avoid energy drinks with hidden caffeine and, you know, hopefully wake up far more alert and fresh and able to do your best work in the morning rather than at the end of the day.

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Jazzmine: Yeah, and other things to think about is mentally as well to trying to, as I know that because of the academic stress, you might, our kids might feel very overwhelmed and their minds cannot win down when they get to sleep time. So, trying to practice relaxation and deep breathing can help with difficulty falling asleep as well. So mental health are also super critical in sleep too, yeah.

Mikala: Yeah, yeah. And it's, we're quite fortunate these days that one of the benefits of devices and apps is there's this, you know, amazing range of useful tools at our fingertips for creating that kind of relaxed, meditative, quiet space. So, you know, that's a benefit, I suppose, of the devices.

Jazzmine: Yes, like my girls would often enjoy, because sometimes we are so busy, I just put on some bedtime stories from an iPad and they can listen to, yeah. So, we also need to acknowledge the benefits of the modern technology that help us as well, but also be aware of the potential detrimental effect.

Mikala: Yeah, yeah. So yeah, it's being aware and balancing the two as best you can. Do you feel like sleep is, because that's so much more individual, and maybe also because it's a little bit more instinctive for parents to sort of spot tired and know when kids need sleep, that that's, you know, possibly harder to measure and or isn't faring so poorly?

Jazzmine: Yeah, so we do have some data in Australia on the sleep as well. So, we found most primary school kids, they meet their sleep guidelines. But for adolescents, only a quarter, so a quarter did not meet the sleep guidelines on school nights. So, it can be due to various reasons, like we said, like increased internet usage, or lack of bedtime routines, caffeine consumption, and academic pressure or other social influences as well. So, it's easy, as you say, it's easier for us to monitor our kids sleep or other diet physically when they were younger, but once they become older, they have more autonomy in determining their own lifestyle. It's harder for us to manage. But what we can do is being a good parental model for those behaviours and educate our kids on the benefits of having a healthy lifestyle.

Mikala: So, talking about it as a family, essentially, is what you're really advocating for there, you know, sitting up at the dinner table, hopefully, and chatting about how to prioritise these factors for optimal health.

Jazzmine: Yes, yes, I would say, as parents, I think it's before we think about changing our kids or improve their lifestyle habits, it's important for us to start to establish healthy lifestyle habits ourselves. Yeah.

Mikala: Yeah, absolutely. I agree with you wholeheartedly. I think that, you know, do as I do, not as I say, is a really a long standing motto for a reason.

Jazzmine: Yeah and the other thing is, it might be overwhelming to to think about changing because changing lifestyles are actually really hard and we understand. So, I would say take step by step like try to identify small goals, one by one and try to achieve them gradually over time.

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Mikala: Yep, so if we could leave the parents listening with a final summary or a nice but bite-sized bit of information to take away to put a lot of this into practice. What would you say to them?

Jazzmine: I would say, trying to change gradually and go step by step. And it can be overwhelming to change all behaviours at the same time so try to identify goals one by one and then tackle them one by one. And then, most importantly to find ways that suit your family and identity practical and feasible actions.

Mikala: Which is a lot like what we often say to our parents. We say there's no one size fits all model, just do your best.

Jazzmine: True

Mikala: Yeah, your best might look like one, you know, your best might look different on a different day but it's all moving in the right direction.

Jazzmine: Yeah, you might be thinking about tackling healthy eating first by incorporating more fruit and vegetables. In, in one month and then in the next month you might try to incorporate more family based physical activity into your family routine and you can also think about how to improve the sleep of the family as well. So, take a slow approach and step by step.

Mikala: Wonderful, that sounds very easy to digest for our listeners, which is wonderful. Wonderful to speak to you today, I really appreciate you taking the time and I'm sure it will be really valuable content for the parents and the families listening. And I hope you enjoy the rest of the day.

Jazzmine: Thank you for having me again. Thank you.

Mikala: Thanks everyone, talk next time.

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