

Transcript: Sleep Junkies Podcast Episode 006

The art and science of the power nap - Dr Kasper Janssen

<https://sleepjunkies.com/art-science-of-power-napping/>

Jeff Mann: 02:30 Good morning, I'm here this morning with Dr Kasper Yansen and he's from the Netherlands on the other end of the line, not too far away from us in London. And I'm really, really excited and super pleased to have Kasper on the line here because we're going to talk about one of my favorite subjects to do with sleep. Kasper is a specialist in power napping. Good Morning Kasper.

Kasper Janssen: Thanks for the introduction. I'm very excited to be here.

Jeff Mann: 02:57 Can you just give us a little introduction about your background? You're a medical doctor and also you've been a researcher.

Kasper Janssen: Yes. I'm a sports physician. I was trained to treat athletes, elite athletes as well, and my main focus has shifted to recovery and sleep because during those years when I was treating, for example, the Dutch rowers, it was very clear that they needed more recovery.

So we saw that when they sleep better they actually improved their performance and by looking at their sleep, by monitoring their sleep, we saw that there was room for improvements and also to adjust their training regime, so that was the way it was actually interested in sleep and specifically power napping, was a little bit before that?

So as a medical doctor, I worked in a hospital and I was doing night shifts and I noticed that, well probably you all notice that after lunch sometimes you can be sort of sleepy or you're reading a book and you're slowly falling away and thinking, well I'm not focused here. I'm not getting the text in my head.

So I noticed that when I fell asleep lying on my book and of course then you wake up and you are scared, are you drooling or something. So you think, well what happened? And then suddenly I noticed that actually after that short nap I was more focused and I was actually able to read the text and really get the text in my head. So that was one of the ways that made me aware of the effects of power napping.

Jeff Mann: 04:40 So you came to it from kind of an intuitive sort of angle.

Kasper Janssen: Exactly, I noticed that it helped me because I was sometimes having difficulty being focused during lectures and it's 4 in the afternoon. You had a big lunch and you're sitting somewhere to lecture trying to stay focused, but you're actually, your attention is going away. You're nodding your head and sometimes you think, oh, well, did I actually get the message? So then I noticed that by doing a power nap I could get rid of the tiredness and get focused again.

Jeff Mann: 05:15 So Kasper, can we talk a little bit about the background to napping. There are a lot of myths and there's a lot of stigma, but really it's something that humans have done since antiquity, napping. There's a big napping culture all around the world in different parts of the world.

Can you help dispel some of these myths? Some people think napping is just for babies and younger kids or maybe older people, what would you say about that?

Kasper Janssen: 05:46 Yeah, that's the big thing. People don't want to be sleeping on the job and in different countries, like in China for example, is really normal to have a power nap at work when you need recovery. You can actually take some time and get recovered to get back to work again after that. So it's sort of a normal thing to do.

In the Netherlands and I, I don't think it's very different than the UK than in the US. I'm not sure, but there's a big thing about napping, like some people do it at home, but it's not really normal to do it in public or at work. So I think we need to get rid of the stigma that napping is the lazy thing to do. It's actually being more productive after you had a power nap.

Jeff Mann: 06:35 Yeah. So, China has got a culture of napping, big culture of napping in Europe, especially in southern Europe.

Kasper Janssen: Also a good example.

Jeff Mann: And is it fair to say that, it's slowly being phased out, isn't it, siesta culture. I mean, I remember I'm going on holiday, showing my age now, so 20 years ago, southern Spain and literally between the hours of, let's say 1 to 4 or 5, all of the shops will be shut.

Nothing will be open. And this was this the time they would have their siesta, but now traveling to Europe, I see, you know, pretty much, uh, there are pockets of that happening, but I think it's being phased out more and more.

Kasper Janssen: 07:23 Yeah, yeah, of course. Europe is getting into the same rhythm. So industrialisation has made us go to a 24 hour rhythm and the eight hour workday or maybe even more hours a day and spend those hours working.

And , I think probably the north European countries like the Netherlands, are pushing that you should be active at work during the day and it's not normal to say the long break even even have your lunch at your computer desk, it's a normal thing to do in the Netherlands. That's a big difference.

Kasper Janssen: And I think the southern European countries tried to go with the flow in that respect, but now I think things are changing because a lot of research has come out the last few years that napping is actually really beneficial for your health and for your productivity even at work.

So I think now, people and especially companies are becoming more aware of the benefits of napping. So, okay, maybe this. yes, the siesta is not a big thing to do anymore, but taking a shorter break, a power nap at work is, is sort of getting a new edge in Europe now.

Jeff Mann: 08:39 It's definitely coming back into fashion. It's slightly ironic because it's something that humans have done for thousands of years and then industrialization and the eight hour workday has forced us to stop napping and now science is kind of telling us, oh, actually, maybe napping is a good idea.

So can I ask you, what are some of the scientific reasons that humans have had this pattern of sleeping? And maybe we can talk about these ideas of consolidated sleep, [biphasic sleep](#), and polyphasic sleep.

Just just to explain to the audience consolidated sleep is when all your sleep is bunched up into one, one segment of eight hours and biphasic sleep where you will have two different sections of sleep throughout the day. And there is evidence to say that we, we're not, humans are not naturally monophasic.

Kasper Janssen: 09:37 Exactly, monophasic sleep is actually something that maybe the economy has made us do. Not that long ago, even my grandfather who was a farmer, he would sleep twice a day. So he would wake up early in the morning have his breakfast and come home, have a big lunch and sleep for maybe 1 and 1/2 hours go back to work.

So industry has become bigger and made us go into an 8 hour work day. And that's forced us into different modes and that make monophasic sleep the standard thing to do, well actually our biology,

our biological clock wants us to have more periods of sleep during the day. So it's counter productive to have monophasic sleep for a large part of the population.

Jeff Mann: 10:40 Yeah, it makes sense if you're running a big factory, everyone turns up at the same time. Uh, you know, you keep the machine switched on for eight hours. But humans, we're not machines. We have periods of alertness and dips and alertness throughout the day. And this is where the idea of having separate phases of sleep come in.

Kasper Janssen: Absolutely I would like to explain. We always think we're on during the day. I like to talk about shifting gears. So I like to talk about when you were active during the day. You want to get something finished, you're likely to shift in a higher gear. And during the day we keep shifting in a higher gear. So probably at the end of today we are in the highest gear and we forget to shift back or even step on the brake.

While normally that would be a wise thing to do to give the body and the mind some rest to be able to be active again after the break. The difficulty is that by, by using a smart phone, blue lights, it is really difficult to shift back, take a break and take a good break, good quality break. And an example of a good quality break would be using a power nap.

It is difficult. So you really have to be aware of your gear. Are you in high gear and could you shift back during the break? And of course possibilities for shifting back are like doing mindfulness. I'm not sure if I'm able to, make a comment with a mindfulness app. Headspace is a good one, I think. Yep. And, and other examples of being aware of in what gear is your body or is your mind actually. Ride the waves of recovery that your body actually needs.

Jeff Mann: 12:37 I just want to rewind a little bit on what we're talking about, this idea of biphasic sleep because I think it's quite interesting. I don't think there's actually, we've reached the scientific consensus yet, but I, I think we generally accept that's we're not monophasic and sleeping for eight hours at a time is an ideal.

They, they call it the postprandial alertness that, yeah, after lunch and everybody knows after lunch there's a big slump. If you've got a meeting, sometimes you've had a big lunch, you know, you're, you're nodding off. So that's one idea of this biphasic sleep. So you have a slump there and you talked about your father who used to get up early and work and, and would have a nap there.

But we've also, in recent times we've also had this idea of first and second sleep, which is actually some, some research by a historian, [Ekirch](#), who talked about this idea that's going through the historical texts, people used to have a break of sleep at night time. And I just want to talk very briefly about that because that doesn't match up to our natural circadian rhythms are. But it seems to be something that's happened in the past.

Kasper Janssen: 13:46 What's the big difference from the recent past actually, probably it's only in the 20th century that artificial light became the real problem. Because back in the day we used to light candles and or maybe a light bulb but not the bright blue light we have now.

Our evenings were a lot longer, so when it got dark, we got less active and we went to sleep. And then during the sleep, because the night was so long we would wake up for a short amount of time, maybe light a candle, read something maybe something else and go back to sleep again.

It became difficult for us to go to sleep early and our evenings became longer. Also the social culture or having free time in the evening and enjoying yourself, go out for dinner or a seeing a movie, watching a series on Netflix. All those things made us shift our asleep to later on in the night and that I think one of the explanations for changing from biphasic to monophasic sleep,

Jeff Mann: 14:53 So we have to find a way to get back to our biology, our nature. I mean it's pretty simple really, isn't it? The way that you put it? We sometimes have to shift different gears, but our biology is telling us to rest or to be. Absolutely. Just one more thing on this aspect.

I just want to talk briefly about [polyphasic sleep](#), which has been quite in vogue in recent years, especially with a lot of people who want to get loads and loads done throughout the day. They found out this idea of polyphasic sleep, which to anybody who doesn't know there are different polyphasic sleep schedules, but the idea is you don't have to have a consolidated sleep, you can break your sleep up into very, very small chunks. Twenty minute windows,

Kasper Janssen: 15:37 Like doing six power naps a day, every four hours, one of the examples which is quite extreme. I read some studies where people went well on this, but they miss one power nap and they feel disastrous. So I think it's pushing your body in sort of survival mode. For example, in elite sports, sailors are doing this. People maybe sleep for 30 minutes, during eight or 12 hours.

It is possible but I would say it's really challenging your body and I would say that your body's not functioning optimally. You're really pushing it and for a short amount of time, once to get things done, it's possible, but I'm sure that especially in the long run, it's not good for your body. So you are really the depleting your energy stores and you're not recovery optimal.

Because for example, if you have only power naps, you're in phase 2 sleep, so if you divide sleep in four phases, you have rapid eye movement sleep, phase one sleep, phase 2 sleep, phase 3 sleep, your deep sleep. And in deep sleep, your brain gives a signal to your body to make growth hormone. And growth hormone is really important for recovery functions or have a lot of tissue. So you're missing out on growth hormone for example, if you're only taking naps.

Jeff Mann: 17:15 Yup. Thank you for that. Basically polyphasic sleep, if you're sailing around the world on your own, fine, do polyphasic sleep, but otherwise probably not a good idea.

So moving on. I know you do workshops for companies and for elite sports as well. So can you give us a list of some of the benefits

Kasper Janssen: 17:38 So when I do workshops at companies, because they are getting more interested in power napping because they see that they should give their employees the possibility to take a break and have an effective break. And when I talk about power napping, I always explain the basics of sleep and why a short break of 20 minutes, like a real power nap, can help recover.

Well for a power nap of 20 minutes it's mainly mental recovery. Of course it's also physical because your breathing goes down, your blood pressure goes down, your heart rate goes down and you come in sort of recovery state. And even if that's only 20 minutes, you can really help to reset the brain and a lot of people talk about napping as if you should sleep for 20 minutes, but I think that's not the case.

You are winding down for 20 minutes and maybe you fall asleep for a few minutes and even those few minutes and you think of winding down gives the body a rest and the mind makes it easier to be alert.

18:41 Again, there's been quite some research, for example, in Australia where they had a study in students who slept for six hours and they were able to have a short power nap for only 10 minutes and after those 10 minutes they were able to be more alert during three hours after the nap. So for three hours they were more alert less tired. And that's exactly the effect you want to achieve by having a short power nap.

Jeff Mann: 19:12 And in terms of performing, we're talking about cognitive tasks, memory, what kinds of things were they experiencing?

Kasper Janssen: Yeah, specifically short term memory and alertness improved. So performing simple, simple tasks, but also learning actually. If you want to learn something, it's really good that you, well, read something or try a new routine and then have a power nap continue learning because the power nap, you're actually able to take up new information after the power nap, so it's a really good idea to use power napping if you're learning for a big exam or if you're upgrading your knowledge on something and have a break after a few hours and continue learning after that.

Jeff Mann: 19:57 So does this learning - we hear a lot about memory and memory consolidation happening at night when we've got a big chunk of sleep - so how does this, learning period happened with napping?

Are there aspects where for instance, you could do an activity in, in the morning and then your memory of that activity in the morning would be strengthened later in the day by napping.

Kasper Janssen: 20:21 There's still being done research on that specific aspect of napping now. Right now you know that for example, shorter memory is improved by a nap of only 10 or 15 or 20 minutes. And, so it would be a good idea to start learning in the morning, for example, have lunch, do a short power nap and continue learning because then the memory consolidation will be better.

And you can actually continue to remain on the higher level that you had achieved before lunch and part of this, because of the circadian rhythm going together with the highest sleep pressure. So over the day, the sleep pressure increases and your circadian rhythm after lunch is also promoting sleep.

So after lunch is a good opportunity, a good window of opportunity to take a nap because circadian rhythm and sleep pressure are close to each other and it's easier to fall asleep.

Jeff Mann: 21:27 How about let's say some of the work you do with sports people and athletes as well on the recovery side of things.

Kasper Janssen: Thanks for asking. I think that's one of the very interesting subjects. As I briefly mentioned, the full cycle nap is really interesting for athletes and people that challenge their body during the day. Because we just talked about the power nap, which is only 20 minutes. And then you have, I call it the 'oops, I fell asleep' which is probably between 30 and 70 minutes.

And then you can have this, this jet lagged feeling like you know, you're, you're, you're disorientated, you feel little slow, you feel foggy in your brain, and that's probably the because you wake up from deep sleep and you don't want to wake up from deep sleep and during the full cycle, which is actually 90 minutes.

22:26 So the normal sleep cycle is about 90 minutes and you go through all the phases of sleep and you wake up during the superficial sleep, so phase one or maybe rapid eye movement sleep. And by waking up from superficial phases of sleep, you don't feel groggy or jetlagged after the nap. And the main benefit from a full cycle nap if you compare it to a power nap, it is that you have the release of growth hormone.

This is really interesting for athletes because the growth hormone will give you added recovery during the day. So if you train twice a day, like in the morning and after lunch, even maybe in the evening, you can have a full cycle nap in between, recover from your morning training, and be more prepared for the training in the afternoon. So you will have more cell recovery, more alertness or you're more prepared for each one.

Jeff Mann: 23:29 Let's talk about that the how-to a bit later. But that's, that's interesting. So you're saying there's a broad distinction here between power napping is mental recovery, mental alertness and what you call a full cycle is going to give you more of a physical recovery.

Kasper Janssen: 23:49 The power nap will also have some physical benefits like slowing your breathing, slowing of your heart rate and, your blood pressure goes down as well. So does have some physical aspects. I would say it's mainly, it does, it has mainly mental benefits and the full cycle nap has physical benefits because of the growth hormone.

This makes it really interesting, really challenging your body and you want to have protein synthesis. I should explain that maybe. Normally we have breakdown of protein during the day and especially if you train hard and you need to recover from the break I'm doing, that's when you're having a normal night's sleep.

You have protein synthesis, so your protein builds up, muscle builds up again. During a full cycle nap. You can also achieve building up of protein, being anabolic instead of catabolic.

Jeff Mann: 24:53 I just want to ask, I know it's not your specific area, but there's a couple of other instances which spring to mind and so I'm talking to people who have disrupted sleep schedules, maybe they're doing shift working and the other one that springs to mind is parents. What are some benefits for people in those situations?

Kasper Janssen: 25:19 For young parents, power-napping can be really, really nice because you can just have a nap when you're a baby has one. If you have a short night, if you wake up in the night a few times to care for your baby, then during the daytime it's a really good idea to have a power nap, for example, after lunch, but actually can be done at any time to neutralize the effects of the short night you had.

Jeff Mann: 25:48 And the same I guess, feel if you're working shifts, if you have to work nights one week and then work days and next week, there's no way getting around that. It's going to mess up a lot of things. But I guess naps can come in handy in those situations as well.

Kasper Janssen: 26:00 Yeah, I agree. Also for people who are doing shift work, it's interesting to look at napping, but it's more challenging because then you really need to tune in with the biological clock when you look at shift work and see when a nap would be beneficial. And most of the time if you're doing night shifts it will be handy to plan a nap before your night shifts, so be prepared for sleep loss that you will have.

Then you really need to look at the specific schedule for that person to give more advice. Having a power nap before a night shift is generally really good and even after a night shift. For example, they found some research on Dutch police agents, where they found that a lot of them have problems driving home after the night shift. They fell asleep behind the steering wheel after the night shift and by having a power nap after the shift before driving home they could prevent those accidents from happening.

Jeff Mann: 27:06 Can I ask you a question, I'm a big fan of naps, but I had this experience quite often where I've gone for a nap, a power nap, but I don't actually think I've fallen asleep.

You know, I set my alarm for 20 minutes. The alarm goes off and I'm pretty sure I haven't gone to sleep, but I still feel refreshed afterwards.

Now, how does that work if I haven't actually fallen asleep or maybe I have fallen asleep but only for a minute, a couple of minutes, but is it possible that there are any benefits for a nap without actually sleeping?

Kasper Janssen: 27:45 Yes, I think it's possible I think it's probably mainly the slowing of the breathing that actually brings those benefits, but also when you're falling asleep, and actually if you only fall asleep for maybe a few seconds, then probably what we think is happening in your brain is sort of a like a switch off of the brain.

So the neurons that normally if you're awake are active during waking, they get a reset and by the effect that they have been reset, they can be challenged more after the nap.

What is exactly happening is still a debate and it's still a big research topic. From the research that we know now, it seems that there is sort of a reset. If the reset is only a few minutes, even those few minutes are beneficial and even the slowing down of brain and the body going into, like in silent mode, it's beneficial.

Jeff Mann: 28:38 Great. Well thanks for clearing that up because this is something I haven't actually seen any research about. I wasn't sleeping, but I still felt great after a 20 minute nap. , And it makes sense the way you explained it, you know, your brain is going into, into silent mode.

Kasper Janssen: Yeah. The funny thing is that by the modern wearables, you can actually show that process. Oh, I used the [Luuna Power Nap](#) mask, which is actually [measuring EEG brainwaves](#). And during a nap if you monitor your nap more regularly, you will see that not every nap is the same. So if you have a 20 minute nap, sometimes you're just relaxed and your brain waves slow down, but you don't fall asleep.

And in other times you fall asleep almost instantly. Like in five minutes you're in phase one sleep and maybe 20 minutes almost in phase three sleep. So it also depends on what gear were you at before trying a power nap. And so it's individual and it can be different every time.

Jeff Mann: 29:55 One thing I wanted to mention as well, people who maybe have some sleep issues that we haven't mentioned and the we should mentioned where napping is *not* advised.

Kasper Janssen: Thanks for mentioning it. I think it's a really important point that power napping is not a solution if you have serious sleep problems or mental or physical issues. For example, [sleep apnea](#), having breathing stops during sleep can cause fatigue during the day. Then you really want to have to problem treated, not using power naps as sort of a well superficial relief. If you are worried that you might have a sleep problem, go to your general practitioner

Jeff Mann: 30:39 And I know that if you're doing a [CBT program for insomnia](#), which is becoming more and more common these days, there's an idea that you want to actually build up the sleep pressure. So when it comes to the evening, you want to be a sleepy as possible.

Kasper Janssen: So if you have serious insomnia then it's not always advisable to use power naps and actually you should discuss this with your doctor or psychologist and try a scheme where you actually increase your fatigue until you're actually able to sleep normally again.

Jeff Mann: 31:16 Okay. So I want to get onto the actual practical tips and things that people can take away. How to actually do napping the right way, but I realized we haven't actually talked about something that's really important and before we do that, this idea of resistance that people have to napping, they think, oh, maybe I could take a nap.

Maybe there is an opportunity in the day, but I don't want to take a nap because I always end up feeling terrible after a nap. And this is something you mentioned before about waking up, you know, where you go into your deep. So I just want to talk about sleep inertia, which is that groggy feeling you get. So what would you say to people who say, I'd like to take a nap, but it just always makes me feel really bad.

Kasper Janssen: 32:03 Most of those people have experienced sleep inertia while being caught by a nap accidentally. So probably they just, uh, we're aware of their fatigue and thought, well let's, I'm lying down and maybe I have a nap. Maybe I can relax a bit. And then you wake up. Suddenly you think, well, what happened at your disorientated and you're in sleep inertia.

That's the main story I hear from people when they tell me about how they experienced a nap that didn't work well. So the first thing is to plan your nap, to have a window, use the window of opportunity after lunch or maybe after you come home from work and say to yourself in the morning, okay, I didn't have a good night, didn't have a good night of sleep and I would like to try in the afternoon and then try it a few times in a row.

Because also the new research from New Zealand where they challenged athletes to have a nap for a few days in a row, and even before a match they will try power naps and what they saw, which was also shown in Japanese research before.

So if you have a few naps in a row, so each day at the same time you tried to do a power nap and then your body gets just adjusted to doing that power nap. So it's more, it's more easy for your body to, give in.

You don't have to succeed at the first time, it's training. Like it's the same with exercise and sports. You have to train, you have to train power napping. If you train it will grow and you become better,

Jeff Mann: 33:42 You know that's really interesting. So you're saying that don't give up. People might try and nap once and they say it didn't work and they give up. But what you're saying, actually, you need to work at it.

Okay, well let's go into let's try and give a really practical guide for people who say, right, I've heard about the science of napping and sounds like a good thing. So how do I go about it? So maybe we can talk about a work situation which is probably the most common situation. So we were talking about power naps here, wrong way as opposed to full cycle naps.

Kasper Janssen: 34:16 The main thing is making your management and your colleagues aware of what you're doing. If you're trying to implement power napping, of course you want to start at home because if you don't know how to nap at home, you won't know how to nap at work. And you can bring into your work and then it's important to talk about. I'm trying to power nap, or I need a power nap, or I want to try a power nap.

Talk about the benefits of power napping. Explain to your coworkers why you were doing a power nap. So it's not being lazy, it's actually taking a break to be more productive after the nap.

Jeff Mann: 34:55 So maybe some of these employees could mention that some of the big tech companies, you know, Google, they're all putting these nap pods, it's a big thing now they're rolling them out in universities now. So maybe that's something you could mention your employer and say, look,

Kasper Janssen: 35:13 Absolutely, in creative environments, companies that look at lifestyle, it's becoming more popular. But to be honest, most companies they're still looking at it and saying, okay, it's interesting. If you really wanted to do it, it's difficult. So if you're convinced power napping would be beneficial for you, just mention it. It's beneficial for you. Don't look away.

If somebody says they still think you're being lazy. You just explain why you're doing nap. When you will do it, and communicate. You might be off the phone for 10 minutes or communicate that you won't be reachable for 10 minutes. So that people know what you're doing. If you successfully communicate, what you are doing, then you can plan your power nap. I actually made a power nap recipe for workers and for athletes to make it more easy for them.

And the first step is, is what I just mentioned, being aware of the benefits of power napping.

Then you can go to step two and actually plan your power nap and step three is finding a quiet place somewhere at work. So it could be, or it could be a couch or a quiet room. Lay down maybe a blanket on the floor and just lie down for a few minutes.

If you found a quiet spot, you just pick up your smart phone with the timer on 20 minutes and you lay down, you focus on your belly breathing, laying down and step five of six focusing on belly breathing. You can just lie your hand on your belly and your stomach. And if you feel your belly going up and down, you know you're belly breathing, it helps because if you're stressed we tend to breathe higher in our bodies.

36:59 And going down to belly breathing instantly slows down your body and make it more easy to, to give in to a power nap. The last part, step seven, getting up. So when you hear your smart phone, get up instantly, maybe have a splash of fresh water in your face. And go back to work again. So don't snooze don't lie down too long. You want to get active immediately after your nap.

Jeff Mann: 37:30 So let's say you've cleared this with your boss and they're fine with it. Yeah. What are some other things that might be able to help? I'm talking about eye masks, earplugs or you know, any [gadgets](#). Are there any special things that people really want to take seriously?

Kasper Janssen: 37:47 So step three was finding a quiet spot and actually if we go into that, don't want to be disturbed. So close the door and make people aware that you're gone for a few minutes. Find the dark place. So if it's possible, close the curtains or bringing a face mask, absolute darkness, it will make it easier to relax. Maybe bringing the blankets or use coats to prevent your body from cooling off too fast.

Jeff Mann: 38:15 What do you think about how some people say that they, they use the car because maybe there isn't anywhere in the office?

Kasper Janssen: 38:21 The car is perfect for a power nap because it's a quiet place you can park in a quite area. Use your chair, lie down and relax and it's a great spot, especially before driving home. Right after work. It's a perfect way of doing a nap.

Jeff Mann: 38:40 Okay if you can get an eye mask I'm just talking about one of these things that they'll give you for free on the plane. You don't need anything fancy but just block out the lights from your eyes.

I always, when I'm traveling, if I've got a stopover, I'll just use an eye mask and put some foam ear plugs in and I've had some super, super great 20 minute naps on stopovers and it works wonders.

Kasper Janssen: 39:08 That's a good example I think it's really individual. So some people like quietness and some people like noise. So for example, one of my athletes, like to have one of those books that are read to you.

So you just listen to a specific book that you like or that you know, use your favorite relaxation music that can also help. Ear plugs are a good idea but if you're not feeling completely comfortable because you won't hear if somebody is approaching you then it could be better to just, uh, find a quiet place. So that's individual.

Jeff Mann: 39:48 Yep. That's interesting. Sometimes, I've had an accidental nap on the sofa. Family is buzzing around the front room and it's very noisy. I still managed to have a nap. So it is possible you don't need total silence,

Kasper Janssen: 40:02 You feel safe around your family, and that's probably why it's possible for you to fall asleep. Uh, so. So, uh, yeah, being safe is really important for having a successful power nap.

Jeff Mann: 40:15 Okay. So, so what about timing? There's obviously that must be an optimal window because it's part of our biology here. What would be some, some guidelines for doing it? Are there ways that people can find out which might be a better or worse time for them to take a power nap

Kasper Janssen: 40:34 That's also individual, but the most important windows of opportunity are the mid morning slump, which I call it during your coffee break. So some people are sort of amazed in the morning, I just came out of bed why should I have a power nap? But because you're awake only for a few hours it's not as dangerous to get into deep sleep during the nap.

So you will have superficial sleep and you can wake up more easy. That's actually a good idea. If you had a bad night, plan your first nap in the coffee break. If it's possible, that's the first window of opportunity.

Second window of opportunity is after lunch, probably 2 to 4 PM, but it might vary for different individuals and that's the after lunch break.

Jeff Mann: 41:31 Yeah. Okay. What about, are there any gadgets for napping that you, you've used or you recommend? And we cover a lot of [sleep technology](#) stuff.

Kasper Janssen: 41:41 So, uh, if you, if you really like napping, then I think Luuna is a really interesting, a sleep mask. I mentioned it briefly before. It's a sleep mask. It's, it's from China and it's actually one of the first masks that is able to measure EEG brainwaves and also give back feedback to the user about the intensity or the success of the power nap.

So you get a score for relaxation and you get a score for sleep so it can help you to build a better nap regime. I think a lot of these new wearables will come out in the next few years and it's, it's really interesting to follow the improved quality of these wearables.

So think I think it's getting a lot better. And also the price is going down really fast so you can get one of those Luuna masks for about a 100 euros, which is a really good price if you compare to the more advanced and also better research tools, like from [Dreem](#), another brand of sleeping mask, but they actually have, sleeping aids. So they might improve your sleep during the night, but Luuna is specifically for napping.

Jeff Mann: 42:56 Okay. That's a great recommendation. Just to make it clear, neither Kasper nor myself, have any commercial ties to Luuna. We just talking about this out of interest. Absolutely. Fantastic. Briefly, just before we close, can you just give us the same kind of thing, but for a fitness scenario, for somebody who is doing this for recovery. Because you're an athlete as well as, running, you do triathlons so you very well, you know, you practice this on your, on yourself as well.

Kasper Janssen: 43:26 Well maybe I can give an example. From the time I was training for a marathon, so I ran a few marathons and I noticed that during the last few weeks when you do your long distance run, like above 20k's, it's more difficult for your body to recover completely after those ones.

Jeff Mann: 43:45 Of course you eat well you sleep well but by having a nap after the run and if it's possible it's even better to have a good lunch after the run and then have a nap so you can have the release of growth hormone if you do a full cycle nap and you can start building protein right after your training. But that's an example of using a full cycle nap or improved recovery after training.

Jeff Mann: 44:12 So that would be directly after a period of exercise, whether it's running or hitting the gym, you know, immediately after.

Kasper Janssen: 44:20 Yeah so do your training, have lunch and if you feel a little bit tired, give into it and have a full cycle nap. Or if you don't have the time and you will feel that it improves your recovery and you will be able to train earlier than normal.

So maybe you need two days recovery normally after a long run. But if you have a power nap and you sleep well and eat well you can maybe train the next day you can really feel that your body's getting in recovering.

Jeff Mann: 45:01 And with timing, setting the timing, I guess there's more danger of hitting this sleep inertia thing if you're going for a full cycle in that business. So what are some guidelines to try and minimize the dangers of waking up in deep sleep.

Kasper Janssen: 45:13 My advice, would be only try full cycle nap if you're really tired or if you had a really heavy training. And don't, don't try it if you could use a little bit of rest, just do a power nap and don't try a full cycle nap.

Maybe also train your full cycle nap. Try it in the weekends when you have lots of time, you feel relaxed and try it a few times and you'll get used to a full cycle use it in training as well.

Jeff Mann: 45:46 This 90 minutes that we hear about it, it's again, we're all individuals aren't we. So you could set your alarm for 90 minutes, but your sleep cycle maybe slightly shorter or longer. So if there's no guarantee that you're gonna not wake up in deep sleep, if you set a 90 minute alarm,

Kasper Janssen: 46:04 You're right Jeff. That's true. So, in my athletes I experienced that they're really tired they could go into deep sleep in less than 20 minutes. So your sleep cycle could be shortened to maybe 60 or 70 minutes while people that don't train really heavy could have a cycle, maybe 95 minutes.

So I agree it's individual you could fall asleep and wake up from your deep sleep and maybe be jetlagged or have sleep inertia for an hour. Because it's the weekend so then it's not a problem so don't try it in your work week.

Jeff Mann: 46:45 Alright, well I'd like to round it up there. , Kasper unless there's anything else we've missed that.

Kasper Janssen: 46:52 So I also wrote a book called the Powernap Paradox and the paradox of course is that still a lot of people think that people who power nap are lazy and I hope I've shown that we've discussed a lot of issues around power napping but mainly that it makes you more productive, makes you more energised and it actually also improves your mood. So I think power napping can make you more healthy and more happy. That's maybe a good way to end the session.

Jeff Mann: 47:22 I'd like to be able to recommend Kasper's book, but it's awaiting English translation, isn't it?

Yeah, it's only available in Dutch but we have plans to make it available in English this year?

Yeah. As we discussed before, I'm a nap evangelist. I think it's a great thing. It's just that anyone can fit a nap in the day. The benefits are huge and there aren't really any downsides. Maybe if you get it wrong a couple of times and you go into, you experience a bit of sleep inertia. That's the only downside.

It's been really interesting talking and my takeaways from this other maybe if you're not convinced that napping is for you, basically you've got to give it a try and you've got to practice.

You've got to get good at it. It's not something that's necessarily gonna come naturally to you the first time and if you are skeptical, don't give up the first time. It doesn't work for you. Try and get good at it and eventually eventually you will.