

## Nutrition **With Natalia Kerkham**

- I'm here tonight with Natalia Kerkham. Now I met Natalia Kerkham something like a year ago at the Institute of Osteopathy convention where she was talking about the role of diet in migraines. It got me thinking that I personally don't think enough about diet in my own clinic. And I suspect that a lot of other osteopaths, chiropractors and other therapists may have that same concern that there were things that they could be applying to their treatment plan, which involve diet, and they need a bit of extra information. Natalia is not just a nutritionist, she's also a practitioner of herbal medicine, one of very few people with both those qualifications, a BSC in the latter and a MSC in the former. And she also lectures at the College of Naturopathic Medicine. Welcome to the Academy of Physical Medicine
- Thank you
- or the Entrepreneur's Circle, whichever it is. Let's get started then with a question I've already primed you with.
- Yeah.
- What's the difference between a nutritionalist and a dietician?
- Oh, well, there's a third one to add into that list as well. Nutritionist or nutritionalist doesn't have any particular special meaning. There are no particular qualifications associated with that. It really just means somebody who has knowledge of nutrition and shares it with others.
- So anyone can call themselves that?
- Anyone can call themselves a nutritionist, yeah.

- That's another one to add to my website, isn't it?
- Dietitians tend to work in the NHS. They are NHS trained. A lot of them work in hospitals, or they may work in community settings.
- So their qualification isn't university-based, it's purely in house NHS based?
- I'm not quite sure how they do their training. I think it might be a one-year academic course, but I'm really not sure. It's a completely separate profession really.
- Okay, okay.
- A lot of common ground, obviously, but they tend to, they work in a rather different area, although it's still all about food and nutrition. A lot of them work in hospitals, maybe working with postsurgical patients or with patients undergoing chemotherapy. People perhaps who've come in from the community and are malnourished. They are very expert in areas such as parenteral nutrition, so tube feeding into the stomach, which I would know nothing about.
- Yep.
- And I'm quite happy about that. They tend to, from what I've seen, and I am talking about a completely separate profession so if I'm maligning them, I would be glad to be corrected. A lot of the time they are dealing with people who are undernourished and a lot of their work goes in turn to just getting calories into people who perhaps haven't had the calories in them. They also work very much as an adjunct to doctors. In a similar way that say, occupational therapists, physiotherapists might work. It's that type of profession within the NHS. Although there are some who then move on to private practice.
- Okay, so let me drag you back to the first part then.
- Um-hmm.
- You said that you don't have to have any qualifications to be a nutritionist or a nutritionalist. Um-hmm. But you have. You've got an MSC in nutrition.
- I have, yes.
- How would we as practitioners perhaps looking for an associate in our own clinic or someone to refer to. How do we know who's worthy of that referral?
- Okay. Well, my job title is nutritional therapist. Which is confusingly similar to nutritionist of course. But that's what we call ourselves. I'm a member of the British Association of Applied Nutrition and Nutritional Therapy, BANT, B-A-N-T. And BANT only accept people with at least degree level qualifications. Not all the qualifications they accept are formally degrees, but they are at that level.

- Yeah.
- And so, certainly a BANT nutritional therapist has had a thorough grounding in not just vitamins and minerals and protein and carbohydrates, but also in human physiology, in biochemistry, and also in the whole business of how to approach a patient. So that's the training that we have.
- And you mentioned there was a third one. Was that just the difference between nutrition and nutritionalist?
- Yeah.
- Okay. What sort of things do people come to you for in clinic?
- A great range of things. As you mentioned earlier, my special interest is migraine. So I see, personally I see quite a lot of migraine patients.
- You also have an interest in IBS I think, don't you?
- I do as well. That's become somewhat secondary to migraine, which has rather taken over my life in the last couple of years.
- What prompted, and I keep interrupting you, but what prompted the interest? Are you a migraine sufferer yourself? Or did you just get lots of people coming to you asking what can we do?
- No, funny thing is nobody comes asking about migraine. I was originally interested in migraine because my husband, my daughter, and my son all have it and I'm a ghoul in very interestingly different ways. So my husband will get quite often just an aura. He'll see flashing lights. Be very uncomfortable. Quite often if he lies down for half an hour, and takes the right herbal medicines, it goes away and he's fine. My daughter originally started with what we thought was a tummy bug. She was violently sick at four o'clock in the morning.
- At what age?
- Four years old. Just before she started big school. This continued. It was always four o'clock in the morning. And she'd always be absolutely fine by eight o'clock. And say, "Can I go to school now?" Having just been ill for several hours.
- Yeah.
- And that, eventually was diagnosed as abdominal migraine. So it is possible to have migraine with no headache, whatsoever.
- Yep.

- And then my son gets the classic horrible banging headache. He goes to bed, he pulls the covers over his head, closes the curtains, and just has to sleep and stay in the dark until he feels better. So I found that really interesting. How could this one condition have such very different manifestations? And started researching it while I was training in herbal medicine in the early 2000s. Then I maintained that interest throughout and while I was doing my Masters in nutritional therapy, I had to do a research project on something, it could be anything, and so I thought, well, let's have a look at migraine.
- Yeah.
- Diet and migraine. Which I thought would be really easy and it turned out to be complex and fascinating so I've built the interest up from there really.
- What conclusions did you draw from your research?
- It's interesting. I thought I was going to go in and be looking at cutting out coffee, cheese and chocolate for six months of research. And that's really what everybody seems to have heard of.
- Yes.
- And red wine. Red wine's the other one. If you say diet and migraine, immediately somebody will say, a migraine sufferer will say, "Oh, no, it's not diet, I've tried "cutting out coffee, cheese, and chocolate "and red wine, and nothing happened. "It didn't improve." And when I got into it and started looking at the research that had already been done, and there is a lot of it. I discovered that trigger foods are just one aspect of the links between diet and migraine. They are quite an important one. Most migrainers will report that some food or other triggers their symptoms. What surprised me, one of the many things, was that there is no one food that seems to upset the majority of migrainers. Not even the big ones like coffee. And that even that the matter of trigger foods is much more complex than you might think, it's not just a question of oh let's find out what's doing it and cut it out of your diet. There can be other issues underlying. For example, quite frequently, someone who's had severe migraines, who is then diagnosed as having Celiac Disease, and then removed all gluten from their diet, will also find that their migraines massively improve, or even go away altogether.
- Yeah.
- Some people are definitely sensitive to histamine in foods as I'm sure I don't have to tell you. Histamine is an inflammatory substance that our bodies produce in response to various stimuli. Anybody with hay fever will know all about histamine and what it does to you. Which is why they take anti-histamines to quell it. There are also some foods that contain significant quantities of histamine. And eating those can trigger migraines for histamine sensitive individuals.

- And which are those foods?
- The main ones, the big ones tend to be aged and fermented foods. So, sauerkraut
- Right.
- is to be strenuously avoided.
- Aged cheeses,
- Damn.
- So really good smelly ones.
- Yeah.
- Are you a migraine sufferer?
- No, well actually I do get the auras that you've talked about.
- Uh-huh.
- And like your husband, they last for maybe 20, 30 minutes as a rule provided I just go and do nothing for a little while and they leave me feeling slight, very slightly headachy.
- Ah.
- But that's all. And they're infuriating when they happen and I was actually going to say that I found them at first very worrying because you get the flashing lights in front of your eyes and you think what the hell is going on in my head?
- Yeah.
- So maybe that's one of the things we need to be able to do is reassure patients it's a perfectly normal symptom. It doesn't mean you've got a tumor and you're gonna die.
- Yeah.
- Not immediately, anyway.
- Or you're not going mad.
- Or, you're not going mad, yeah.

- But
- Can I stop you for just a second
- Yeah.
- because you talked the research and you talked about what you've done with migraines. But you've said you can get abdominal migraines. Pain free migraines, aura only migraines, or crashing headache. How the hell did you define your topic? How do you define a migraine in order to relate diet at all and nutrition into it?
- That's a good question. A lot of the research starts with headache.
- Yes.
- And doesn't really explore the other manifestations of migraine.
- So is a lot of what you say relevant to other headaches as well?
- Other headaches. That's an interesting question. The line between migraine and non-migrainous headaches is actually quite a blurred one. Tension type headaches can shade into migraine and vice versa. I very often find that patients I see will actually say oh, I had a headache and I say, was it a migraine? And they'll say yes it was, or no, no, that wasn't a migraine headache. And they're quite clear about they can have one of two types of migraines, of headaches. They have a sort of headache menu.
- I think I actually think I'm lucky in some regards to suffer from this aura thing. It's very infrequent. But only because had I not gotten them, I would never have thought to associate that with migraine.
- Right.
- It didn't occur to me that it was migraine when I first had one, which must have been about 20 years ago. 17 years ago, in fact. The doctor diagnosed it. Gave me an anti-migraine medication which I've never taken because it's 30 minutes of discomfort so I haven't bothered.
- Yeah.
- But it means also if you get patients with that symptom,
- Yeah.
- then what you're about to tell us this evening could be really useful advice for them.
- Yeah.

- And you were telling us about histamines, sorry.
- Some time ago.
- Oh, gosh, yeah. Some time ago.
- Aged cheese, I need you to strike
- Trigger foods.
- that one off the list. Cuz' I like that.
- Trigger foods. Well, only if you are histamine sensitive as well as having migraine. For migraine sufferers who are not histamine sensitive, cutting histamine rich foods from their diet is completely useless. It's just a tribulation for nothing. It will only be bothering them if they are histamine sensitive.
- It kinda begs the question. You said that most migraine sufferers know which food it is that triggers, if they have a trigger, they know which one it is. Well, why the hell are they eating it?
- Again, that's another fascinating, fascinating question. Trigger foods are much more complex than you would think. For a start, for most people, even a known trigger food won't always trigger a migraine. It has to be usually about day so somebody who knows that chocolate can trigger a migraine. On about day, when they've not slept, they've had a stressful day and they're tired, if they then have chocolate, well, then they get what's coming to them. But on a good day, they can probably eat chocolate with impunity. There's a whole series of factors that will take somewhere nearer and nearer to tipping over into a migraine. And that chocolate might just be the final straw. There is also what I call, reverse triggers. So, for example, I discovered later on I actually do get migraines. I only discovered this a few years ago. And my, I suppose, my reverse trigger could be described as coffee. I don't like coffee. I don't generally drink coffee. And I know that even on a good day, if I have coffee, it leaves me feeling a bit queasy, palpitations, it's not for me. And one of the worse migraine attacks I've had, ever was on a day when I'd had a long day down in London, which is quite a distance from Mornington, where I live. So early train in the morning, long hard day doing MSC study and then I had an hour or two to wait until my train in the evening. And in that I thought, I could just fancy a cup of coffee. So I had a cup of coffee. And then, I had another cup of coffee. I've never drunk two cups of coffee, ever. Two hours later on the train, I thought I was going to die. I felt so ill. And I was ill all weekend. And it was only looking back that I realized it wasn't, I don't think the coffee triggered the migraine, I think it was the migraine impending that triggered the craving for the coffee.
- Have you tested this theory by drinking two cups of coffee since?

- Never.
- Rightful.
- I'm not doing that ever again.
- Can we get two cups of coffee ready somewhere in the studio? We'll just put this to the test because But it will be an interesting test, wouldn't it?
- It would be an interesting test.
- For everyone else but you.
- But there are other, when I talk to patients about that, I get a look of recognition very frequently.
- Really?
- Oh yeah. Well, you know, why did I eat that whole bar of dairy milk? I wouldn't normally do that. It's usually a quite untypical behavior that's outside their normal sensible limits and
- So recognizing that
- thinking, why did I do that?
- reverse trigger would be a useful warning sign, but then you need to know what to do about it
- Yeah.
- to prevent the migraine in the first place,
- Yeah.
- or any subsequent.
- Well then that's where if someone has preventative medications, that could be a time to take it. And the other thing about it is that the sufferer doesn't have to beat themselves up for having been so stupid. And that's actually quite important. Not feeling like, oh, I let myself into that. I did that to myself.
- Hmm.
- So it's the thing that worth knowing about.



- Yes. Yeah, and it's probably not something that the average patient would consider. They would assume that they'd eaten something stupid,
- Yeah
- and that provokes the migraine, wouldn't they?
- Yeah. And sometimes it will be that.
- Yeah.
- It is quite difficult to pick apart.
- Yes. See, it's so funny you mentioned histamines.
- Hmm.
- You went back to chocolate again then and then coffee,
- Yeah.
- which are the ones typically on the list along with red wine. What else should our migraine sufferers or tension headache sufferers be looking at potentially?
- There are, in terms of foods to avoid?
- Yeah.
- There are so many possibilities. There was a very rigorous study done back in the 80s in which children with very severe migraine often with epilepsy as well as behavioral problems were put onto a very strict elimination diet. They were each allowed only four different foods. So that's a really dull diet.
- Yes. For how long?
- For a month initially, I think it was. And during that time, and even then in some cases, some of the foods had to be swapped out and replaced because we're looking at a diet of either lamb or chicken, either oranges or apples, either cabbage or I forget what the other vegetable was, water and not very much else. And even then, some were sensitive to some of those things. So they had a month on their really dull diet and most of them improved massively. I think there were out of 84 children enrolled, there were only about seven who didn't see any significant change.
- Yep.
- Then, they started adding back in one by one, other foods,

- Yep.
- And they found something like 55 separate foods that were triggering migraines in at least one child. And one child turned out to be sensitive to 24 different substances.
- Crikey. That must make parenting very difficult.
- It would. It was also noted that the children were often inordinately fond of the offending foods. Addicted to them, maybe?
- Yes. And these were provoking headaches or all sorts of other symptoms?
- Headaches, severe migraine and other problems. Quite often, epilepsy. Epilepsy can go hand in hand with severe migraine and again the border between the two can be very fuzzy. And behavioral problems generally. Well, and very frequent migraine so you can see how a child might wind up with behavioral problems if they're going through that sort of grief.
- Indeed. Given that epilepsy is electrical disturbance within the brain, has anybody shown any similar sort of disturbance in migraine? I mean, I don't know what studies have been done into migraine sufferers to see what is actually happening.
- There is something known as the cortical spreading depression. ECGs have shown a wave moving across the head at oh, a rate of sort of, centimeters per second, fairly slowly, in which electrical activity within the brain is much reduced. This wave can apparently be seen going across the head so there is something going on there.
- Is there any evidence of inflammation in a rolling migraines?
- Yes, sterile inflammation during attacks is another feature and that is going to hurt.
- Yeah. Taking place where?
- Hmm, that's a good question. I don't know
- I'm sure we can find out
- Within the brain
- something for the course. We can look at the course later.
- Yeah.
- That's of course, a question I would expect people to want to be interested in because you got much of our work concerns inflammation. Osteoarthritis or other things.

- Ahh.
- And that leads me down the route of several of the questions which have come in.
- Um-hmm.
- Alison, for example, thanks Alison. Alison has asked, do you have advice on recommending the use of multi-vitamin and mineral supplements and fish oil supplements for healthy adults. As always, the worry that they may be a waste of money for adults who eats a healthy balanced diet, which has nothing to do with inflammation. I read the wrong question, but Alison thank you for the question anyway. Let's deal with it. Multi-vitamins and fish oil.
- Okay. If we're talking specifically about migraine here,
- Yeah.
- there is a specialist multi-vitamin and bleh, multi-vitamin and mineral designed specifically for migraine called Dolovent, D-O-L-O-V-E-N for November, T. Which contains the right mixture of these migraine specific nutrients as well as a good multi-vitamin and mineral included in there. So, in turns of migraine, that's one I go to quite a bit although it can be a bit, very sensitive people, people with sensitive digestions, it can be a bit of a sledgehammer sometimes. But it's a good way of getting the right nutrients into people with us if they can tolerate it well.
- And in terms of anti-inflammatory nutrients or foods?
- Well, the fish oils that your questioner asked and mentioned. Fish oils have a definite anti-inflammatory effect. The important thing is to go for quality with those.
- Yes.
- A lot of the fish that the oils are taken from are towards the top of the food chain, they bio-accumulate toxins, heavy metals from our polluted seas, so it is important to go for high quality supplements from reputable suppliers.
- Such as? We can name names,
- Okay.
- this isn't the BBC, so
- Alright.
- Viridian are a very well trusted brand and they're
- Viridian with a V?

- highly ethical.
- Yeah, Viridian with a V as in such a greeny colored.
- Yeah.
- And their packaging is greeny colored.
- Yeah.
- Very ethical, high quality.
- What about Solgar?
- Yeah, Solgar are fine and they're widely available on the high street as well. I wouldn't go for supermarket specials or you know, big chain owned brands, which can be a bit dodgy, I think.
- And that's because they're getting it from cheaper sources,
- Yeah.
- which involves the polluted
- Yeah They're less, perhaps less selective about where it's coming from, what sort of fish they're using, the good ones tend to come from the southern hemisphere, where there is less pollution. One firm harvest their fish off the shores of Peru. Another uses fish that are farmed in Norwegian fjords, or is it rivers? But, areas where the purity is easier to come by.
- Have we wrapped it up for migraines with what you've said today? Because we've talked about histamines. We've talked about anti-inflammatory foods.
- We haven't even started.
- Well, actually we do get patients coming to us with migraines asking if we can do anything about it. And it's, I would say there is scant evidence that manipulative therapy in itself can be effective on migraines. And I'm not saying,
- That surprises me.
- Well, I'm not saying for a second that it isn't effective. I'm just talking about the amounts of evidence there is in order to convince, for example, our friends at the advertising standards agency
- Yeah.

- that we can put it on our website.
- Yeah.
- There is for headaches, for stuff like
- Yeah.
- the genic headaches, for example.
- Right. But again, the the border between the two is not as sharp as we might be led to believe.
- So when someone comes to you for migraine, because they've got a migraine though, what's your first response is to look at are they the typical foods that you've mentioned first of all? The coffees and the red wines?
- I don't tend to get too excited about trigger foods. People who have genuine trigger foods tend to know what they are.
- Yep.
- And I don't have much to add to that. The biggest dietary trigger of migraine attacks is not actually a food at all. It is hunger. And 2/3 of migrainers find that getting hungry, skipping meals, fasting, will trigger a migraine for them. And there's also been research that has found that migrainers very often are more prone to getting desperately hungry than average. So, I have quite a few patients who've already learned that they need to walk around with a packet of nuts in their pocket or something for emergencies who maybe can't go more than two or three hours between eating.
- I remember you mentioned this at the IO Convention actually and I did pay attention to what you said.
- Well done.
- Could you elaborate then on someone gets migraines? You've asked them how often do you eat? They'll tell you whatever it is. What's your suggestion? How often should they eat and how much should they eat if they're doing this, let's call it snacking, for want of a better expression?
- It, well, the first answer is it depends on them. But at the kind of top end, it could be six times a day. So, someone who needs basically three moderately sized meals and then three decent snacks in between. So, a good breakfast that has either, well that has some protein in it, which tends to keep people going a bit longer than just

carbohydrates. So, not just a bowl of cereal. But, maybe some eggs or some plain yogurt, which is reasonably high in protein. Or, a protein shake.

- How much protein
- Something
- is there in milk?
- Milk is, it's not bad.
- Cuz' most of our cereal's will be diluted with milk.
- Yes.
- So there will be some, some protein
- Yes there will.
- What is it?
- We can come back to it.
- I can't remember,
- It's unfair of me to ask
- Yes.
- Some of these figures on the top of your head. In fact, we've got a bottle nearby so we can look at it.
- We can, we can look at the nutrition label on that.
- Because we're going to do some practical in a minute.
- We are. So get some protein into your breakfast. And then, a mid-morning snack. Maybe some of the afore-mentioned nuts. Actually on the handout that accompanies this, I put some snack ideas for suitable nutrient dense sustaining snacks. Nuts, seeds, appropriate types of fruit.
- And it's not preferred to reach for a bar of chocolate three times a day in between your meals?
- It really isn't. Or a donut, or a teacake, or a biscuit. That's not helpful.

- I knew this discussion was going to destroy my lifestyle completely. But that's quite revealing, isn't it? I wonder how many practitioners, let alone patients are aware that eating more frequently might stave off their migraine? And there's good evidence behind that.
- There is. It's quite an old study, in fact it's 1978. And there's been very little follow-up since, which is heart breaking really. And in my own research, what I discovered was that, no, patients don't know about this and neither it would seem, do their GPs or even their specialist neurologists. One lady said she'd been told something like, oh, if diet was doing it, you'd know by now. And that was it. She'd asked to be referred to a dietician and was just fobbed off. No, there's nothing there. And this is actually,
- Why do you think that is? Is that because the neurologist or GP thinks they have the answers in their own particular therapy? Or is it just, what you've talked about, the research you've talked about, is obscure, thin on the ground, and the studies are too small to be hugely significant?
- Hmm, I think the latter.
- And there's nobody out there promoting it in a way that a
- Yeah.
- pharmaceutical company would.
- I mean, if you look on the website of migraine action or the migraine trust, there is a page about keeping your blood sugar balanced, not allowing yourself to get hungry. But, in a way, the trigger foods just seem to take all the limelight. Nobody's noticed that there are other things out there and for me, the frequent eating, which can be of benefit to 2/3 of migrainers is a huge one. A much more recent study I think is 2014, found that just having a bedtime snack could reduce the odds of a migraine attack the next morning by something like 40%.
- Really?
- That's massive. And that's just a bedtime snack.
- Yeah.
- And, as a nutritional therapist, what I also like about that approach is that it's not about cutting foods out of someone's diet, which is no fun. And can also, if taken to extreme, start to unbalance the diet nutritionally. This is actually about eating more good food and getting the nutrients in.
- Yes.

- Which is healthy all around as far as I'm concerned.
- How much of what you do is related to obesity? Do you get referrals to deal with obese patients or maybe patients who are just concerned about their weight? Or is that somewhere which the dieticians have more input?
- I don't see that many people. I don't get asked. I think there are nutritional therapists who work a lot with weight.
- Yes.
- But it's, occasionally. But usually, it's in the context of treating something else and oh, by the way, can you help with my weight? Rather than somebody actually coming and saying. I need to lose weight.
- And what's your approach to someone who needs to, well, what's your approach to someone who asks if you can help them lose weight or someone who you look at and think you need to lose weight?
- My first thought would be to, well look at their diet, which I probably already know something about. And see are you just eating too much? Are you eating the wrong things?
- I tried this once with a patient. I came, I was doing the MSC at Leeds Met in osteopathic sports camp. Excuse me. And we had a nutritionalist come in and talk to us and I thought, right, I'm gonna apply this in clinic. And the first patient came in and I said right, I want a detailed diet diary from you. You know, portion sizes and what's in it, and all this. Of course, it never happened because the patients are not prepared to do that. How do you get that meaningful report from your patients to say this is what I'm eating? This is my typical diet.
- Well, it depends on what the purpose of that is. If we're looking at weight loss specifically, then actually, yes, I need to know how many calories are going into you. In which case I will need them to go away and do a detailed diet diary for at least three days with a good indication of portion sizes. If somebody will actually weight it, that's great, but life isn't like that. That I could actually take away and put into a spreadsheet and analyze it and find out what's in there. How many calories? What's your ratio of carbohydrates, fats, proteins? Are you getting enough vitamins and minerals? Are you getting enough water? Enough fiber?
- Is that something that we could do in our own clinic? That sounds quite complicated.
- It is, and it's time consuming and requires software and I would not, I hate doing it. No, I wouldn't recommend it if you're not actually
- In the wrong job.



- a nutritional therapist. Sorry.
- You're in the wrong job.
- I don't do it too often. It's also of somewhat limited utility a lot of the time.
- What about then, for example, the fact that patients can find support groups. Weight Watchers, Slim, Slimmer's World.
- Slimming World, yeah.
- Do you find there's a universally effective or does that again depend on the individual and their approach to it?
- Well, a lot depends on the individual and their approach. Obviously, this person has to be prepared to actually do it. To change their diet. To eat differently. A lot of people actually do, in my experience, do very well with the slimming clubs. It's the peer pressure, the praise when it goes right, knowing that you're going to be held to account.
- Yeah.
- At a particular point. A lot of people find that that helps to keep them on track.
- How about people who are intimidated by this approach? Where, you know, as they would prefer to have their peer review come from you, rather than from someone else who's trying to lose weight?
- Well, that's a good question. Yes, possibly.
- Again, I'm thinking of the people who come into our clinics.
- Yeah.
- Well, should we be saying like go off to slimmer's world or should we be saying would slimmer's world suit you? If not, do you want to come back here every week and see a nutritionalist or see me and we'll
- Yeah.
- keep track of this?
- That's reasonable, yes. I haven't been in that position because if they're coming to me asking about weight loss, then obviously that's the choice they've made. But certainly, I also have patients who come in who say, oh yeah, I'm doing Slimming World. Or, I'm going to Weight Watchers and what they're eating is usually very

sensible, very healthy. It does seem to help them and keep them on track so yes, it's an individual choice. And what works for one person wouldn't work for another.

- When I've looked at papers on nutrition and they've always talked about basal metabolic rate and physical activity levels and lots of other three letter abbreviations.
- Yes.
- Are these things important?
- Yes.
- How do you measure somebody's basal metabolic rate then?
- There is, there's a formula for calculating it,
- Which I'm not going
- Which is based
- to ask you to call to mind live on air.
- Thank you. Because I don't know it offhand, thank you. It's based on
- Is this something that we want to cover on the one day course that you're doing with us?
- Yeah, yes.
- I mean, would it be useful?
- Yes, it'd be useful thing to do.
- Yes.
- And it's, again, you put it into a spreadsheet and just plug in somebody's height, weight, age and approximate activity level and that will spit out a number of calories that they need to maintain their current weight. And then you add or subtract if you want to gain weight, lose weight.
- Now getting into real basics here then. In terms of their calories, we want to balance between fat and carbohydrate and protein.
- Yeah.

- Is that a nice fixed ratio that we should advise them on? If you give them a ratio, is that meaningful to a patient?
- No. It's not helpful. I can get very nerdy about these things. I love numbers. I love calculating ratios. The government recommends that 40% of calories come from carbohydrates. 30 from fats and 20 from protein, pretty much. That doesn't allow for having any alcohol.
- Right.
- Which is very sad. That's their sort of ballpark. That's not a bad ratio.
- Okay.
- And suits a lot of people. Some people will actually thrive on that level of carbohydrates. For others, perhaps nudging more protein in and perhaps taking the carbohydrates down a bit works quite well as well. Again, the migrainers I was talking about. The people who get hungry very readily will actually tend to do better if they increase their protein and their fat and plus reduce their carbohydrates from that ratio.
- Yeah, I shouldn't have been surprised but I was to find from my new best friends the bodybuilders in the gym that I go to that they are very, very diet aware.
- Oh, yes.
- And I haven't asked them what their ratio is but I imagine it's 90% protein.
- Well I would hope not. That would be a bit extreme.
- Well they always talk about the, that's an aside. But they're talking about the fatty diets then. What about the Atkins diet? Because that breaks all those rules, doesn't it?
- It does. I don't think there's anything wrong with Atkins myself. If it suits someone. There are people who just need carbohydrates and they don't thrive if they don't get enough of them.
- Yeah.
- But for a lot of people, particularly people who have got severely overweight, cutting right back on their carbohydrate intake is unlikely to do them any harm. Looking at those, I mean those are the three, what we call the macronutrients, where the calories come from. You don't get calories from vitamins. You don't get calories from minerals. You do get them from carbohydrates. So sugars and starches.
- Yes.

- Fats, fats and oils, and proteins, meat, fish, poultry, dairy, eggs, and from other foods as well to a lesser extent. What I find interesting is that carbohydrates are burned for energy, but they don't do a great deal else. Fats are burn for energy but they do do a great deal else. In something like 60% of the dry weight of your brain is fat. You can't live without fat. In fact, if you try to go for a no fat diet, your liver will create fat out of whatever raw materials you give it.
- Yes.
- Because it, the body, desperately needs those fats.
- Do you find, I don't know that I've come across any in clinic myself, there are people out there who believe that it's cutting fat from their diet which will help them lose weight, which is a nonsense.
- It is.
- As far I'm, yeah. But you find people out there who believe that.
- Yeah, there is, it's not surprising after the public health messages we've been having in the last 20, 30 years. We've been told, fat is bad for you. Go low fat. Fat will make you fat. It's really unfortunate that
- It's called fat.
- fat has these two meanings. Yes. It means lipids on the one hand and overweight on the other.
- Yes.
- Now, fat is very calorie dense. Just to put that into context, one gram of pure fat will yield nine calories. Now, one gram of carbohydrate will yield four calories as will one gram of protein.
- Yeah.
- One gram of alcohol is seven. If anybody's wanting the fourth one there. So, just, you can make your salad and get this big bowl of salad vegetables and that will have considerably fewer calories than the tablespoon of salad dressing with olive oil that you put over the top.
- Yeah.
- So, there is the pitfall that fat is very easy to take in a lot of calories in a very compact, dense way and perhaps not be aware of it.

- And which are the real culprits? What's the most unexpected fatty component that people put into their food without realizing it, as it were?
- Well, the hidden fats tend to be in the processed foods.
- Okay.
- The biscuits, crisps,
- Yes.
- those sorts of things. Most people seem to be aware that nuts are high in fat. Which they are, they are very rich in fat. But, they also bring with them a lot of vitamins and minerals. It's just important to remember to stick to the small handful and not just keep having another one, and another one.
- These are the things you've got in your pocket for your snacking
- Yes.
- When you've got a migraine.
- Yes.
- You're tucking into piles and piles of cashew nuts everyday then.
- What you're snacking so that you don't get a migraine. Yes, but you don't need an awful lot of them.
- We had a question here from Christine. Thanks Christine. She says, Natalia, the low carbohydrate, high fat way of eating is gaining credence in popular science. What's your view on changing one's diet to restrict carbohydrates below 60 grams a day?
- That is quite low. I'm, if, for someone who is pre-diabetic or diabetic, I can see yeah, there are advantages. By the time you're into diabetes, then you're really looking at a major problem with carbohydrate metabolism and so trying to get your calories, your energy from carbohydrates, is not ideal. And moving away from them is going to be beneficial.
- Yeah.
- If you're not in that position, then 60 grams is becoming quite restrictive on your diet. It's limiting the amount of fruit you can eat, for example, which is sad. It's meaning that you probably wouldn't dare to have a slice of bread. It's going to be quite restrictive in terms of what you can do. Eating out could be a nightmare.
- So do you know of any serious research into that diet?

- There is ...
- Christine talks about Popular Science,
- Yeah.
- of course that doesn't necessarily reflect ...
- There has been a lot. Its been around for a long time. Originally, where you go back into the 19th century. There was a gentleman called, I think it was William Bant, who became massively obese, was diabetic and who put himself onto what we'd now call an Atkins diet. He stopped eating pretty much all starches and the sugars and he got better.
- Yeah.
- And the original name for the Atkins diet was Banting. I'm Banting today.
- We might actually come back to this a little bit later. I think it might be an idea for us to get into some practical from here just to sort of provide,
- Break things up.
- a little bit more useful entertainment for our audience. We've got the jokers on the line as always. This one is from Mark. And Mark says he thinks there are lots of reports of people eating biscuits while they're watching us. And I suspect alcohol as well. And he suggested that we cover emotional trauma and guilt issues in our next broadcast. But we're not gonna do that, we're gonna be talking about marketing in our next broadcast. In particular, social media. But should we have a look at some ...
- Yes.
- actual practical dietary advice.
- Should have a look at some food.
- Yeah, let's look at some food.
- Yeah, let's do that. So, what we have we're going to do a couple of smoothies, aren't we?
- Yep, we're gonna make some So what's the kit we've got here?
- So, what we have here, we have two alternative ways of making a smoothie. We have a NutriBullet. These are very popular now. You may well be familiar with them. Come right down in price, I think they're about 70, 80 pounds now?

- I was ripped off.
- Yeah, I paid a lot more for mine as well. You see, we're early adopters.
- [Woman In Audience] Yours was a present.
- Oh yeah, sorry, I didn't pay for mine, it was a present. Thank you very much from the floor manager.
- And these are brilliant. They will pretty much deal with anything you care to put into them. So, quite tough things you can put. You think how hard a raw carrot is, for example.
- Right. I tell you what we're gonna do. We're gonna put something in it, aren't we?
- Let's put something in it.
- Tell you what. Tell me what that white thing is first of all. I'm gonna make my breakfast.
- Right, the white thing. This is just an ordinary stick blender.
- Right.
- So it won't deal with anything like a carrot but it's very good for softer things. Fruits, and so on.
- Excuse me. I'm gonna duck around behind,
- So, right.
- No, you stay where you were.
- Alright.
- You stay where you're at. That's your slot. I've been told you got to stay there.
- Alright.
- Floor managers very decisive about these things.
- Alright.
- So, here's my breakfast.
- Okay, so what do you have for your breakfast?

- It's quite a big pot there, right. I stuff this with kale.
- Rightio.
- You're gonna love this, the sound manager's going to love this shortly because this makes a hell of a noise. I stuff that with kale. What else do I shove in there? I shove these, I normally put pineapple in it.
- Right.
- We've got some pineapple over there. Can you pass me the banana as well?
- Okay.
- So I shove some berries in it. And I shove some lovely shop bought raspberries in it.
- I take it you don't want the skin on the banana.
- I'd rather not have the skin, thank you very much.
- Just checking.
- Alright.
- Never know what people will eat.
- Okay, good.
- Okay.
- And get your fingers all sticky.
- That was a slightly
- Right, we're gonna move this glass out the way because again, I'm being told off
- ripe banana
- by my team. Right, we're gonna shove all of that banana in there.
- Right. So there would be some pineapple in there.
- Yeah.
- I might put an apple in there but we're gonna do this reasonably quickly,



- Okay. A bit of water.
- So we've got to top it up to a reasonable level. This is the bit I've been looking forward to, making this noise on camera. So there we go.
- Right, so
- Tell me what's, is it, better not tell me what's good about this at the moment.
- Not while you're doing it, yep. Ooh.
- Well you can do that for up to a couple of minutes but that's probably enough for that. And that's how the NutriBullet works for those of you who haven't got one and they're brilliant and I have a full one of these for breakfast everyday, which is probably twice as much as I'm meant to eat. And there particularly good because it's now a cup. Right. So is that a good breakfast?
- Um, that's got a lot of good things in it. The banana
- Yep. is going to provide you with a certain amount of fiber and it's also rich in potassium, which will help to control blood pressure.
- Yeah.
- And it gives it nice sweetness and a nice texture.
- Okay. Now, what would you do with yours? You're gonna challenge my breakfast thing with
- Okay, we haven't through all the things,
- Oh, sorry, I get your pardon, yeah.
- Dear me.
- It was a pause.
- I won't pause again then. Then you've got the kale, which is, that's part of the cabbage family, the brassicas. Massive amounts of health benefits to those. Rich in lots of sulfur containing compounds. So these are good anti-oxidants. They can help protect against heart disease, against cancer. Just everybody should be eating brassicas pretty much. You've got that in there and you've got your berries as well. The blueberries and raspberries. So those are the sorts of fruits that release their sugars nice and gently into your system. They're not going to give you a big spike in blood sugar followed by a crash, which might give you a migraine. So that's all gonna be

- And the pineapple, which I normally put in this thing?
- Pineapple does release its sugars quite quickly but it does have some enzymes in it that can help your digestion.
- Right.
- So, and again, it's a nice flavor.
- So it's all good so far.
- Yeah, it's all good.
- Right. What else could I add?
- So, what I am seeing though, for breakfast there's no protein in that. It's, it is fruit and veg. You know, you've almost got your five a day in there by the time you've got your pineapple in there as well. And it's only breakfast time, which is wonderful.
- So I need to put some meat in it?
- You could put some, I wouldn't put protein powder into that. You might have an egg alongside it.
- Yeah.
- Or just a few cubes of cheese, or a bit of, you could try putting a bit of plain yogurt into that.
- Yep. I definitely like, be happy with that.
- Which, being interesting to see what the effect of that was, how well it went.
- Hmm.
- So getting a bit of protein in there might see you through the morning a bit more.
- Okay.
- What time of day are you drinking that?
- Seven o'clock, usually.
- Right. And then, what would be the next time you'd want something to eat or drink?
- At a quarter past seven, probably. Probably, round about 10 o'clock in the morning,

- Right.
- I'll be thinking, hmm, biscuit time.
- Right, so
- And the team are now giggling because they know what I'm like with biscuits.
- Biscuit boy. So, yeah, possibly having some protein alongside that. You might get through to 11 o'clock, midday. Might even get through to lunch time. Depending on how good your inherent blood sugar control is.
- Okay. Right, let's have your recipe.
- Alright, mine,
- Put this out of your way.
- Mine's a little different. Now I'm starting with, if I can find it.
- This is like, it's like Fanny Cradock, isn't it? I feel like Fanny Cradock's husband was traditionally drunk on set, I think. Sadly, we haven't got any alcohol.
- So I'm starting as well with what was originally a frozen banana, but isn't frozen anymore. Freezing the banana, it looked nicer earlier, I promise you. It's good for the texture of this. It gives it a more, kind of milkshakey texture.
- Okay. They get black really quickly don't they, in the freezer?
- Not when you peel them and slice them. That's what I thought the first time I tried it.
- Okay. I thought this was gonna go black, and it didn't.
- So peel it and stick it in the freezer?
- Yeah, and then I'm adding a scoop of whey protein powder. So this is putting about oh, a third of sort of normal protein requirement for the day
- Now you are beginning
- into my breakfast
- to look like my body building friends. Don't I not look like I'm around body building friends, but you know what I mean.

- Well, yeah, the protein powders tend to come in these very kind of manly tubs. They're always nice and big. Very often they have pictures of bulging muscles on them. If you're female,
- Instead, they get me. That's fine.
- If you're female, don't let that put you off. These are really useful things to have, but they do tend to be sold still as sports supplements, which is a bit of a shame really. So, we got our protein in there.
- Is there a recommended for these? Now, you are using Lamberts, are they good?
- I'm using Lamberts. I like it. It's a good quality protein powder and they do an unflavored one. Very often, you get various flavors offered like, vanilla, chocolate, strawberry.
- Yeah.
- And they're all laced with masses of artificial sweeteners, which aren't brilliantly good for you.
- Okay.
- And which, personally, I just find way too sweet. If you're putting fruit and other things in, you really don't need extra sweeteners. But yeah, I like this one. You can find good ones in supermarkets though, or online. There's a good choice now.
- Alright, so we got protein, we got banana.
- Protein powder, and the next thing that's going in is about a tablespoon or there about of, this is almond butter. You could use any nut butter you wanted, but almonds are particularly high in all sorts of minerals. They've also been shown to help regulate cholesterol levels, thank you. So that's just that. Now there is quite a bit of fat in that. So that's where a lot of the calories in this are coming from. That's that. And what else do we have? Oh, yes. Where's it gone? Cocoa powder.
- Oh know, not the most important ingredient.
- Where's the cocoa powder? Um, hmm.
- Okay, let's
- Oops.
- assume you carry on with other stuff and I'll have a look for your cocoa powder. Floor manager, help me out. Where's the cocoa powder gone?

- Right, I will add it could be in that bag down there possibly. It might have fallen out. So, we are going to have, I know I put it in. Aren't you wonderful? Thank you.
- And not only that, it comes in its own NutriBullet and it's Green and Black's. That's excellent. We like Green & Black's.
- Alright, so. Seal's still on the, maple syrup is going in here. And that's just half a teaspoon full. So a little bit of added sweeteners but nothing major. And then,
- I think almond butter's very nice.
- It is, yeah. I like it.
- Can you manage me that?
- Yeah, probably. Oh no, no, I am man enough.
- It's all that body building stuff you're taking.
- Yeah. A quarter teaspoon of vanilla essence or extract.
- You're gonna have to tell us where to buy one of these fantastic little tools with all the right size spoons on it as well.
- Now that was a Christmas present, so I don't know where it came from. And then two tablespoons of unsweetened cocoa powder, so not hot chocolate, actual cocoa powder.
- Proper Green and Black's, the good stuff.
- Oh yeah, organic and everything. And then,
- This is looking like my kind of breakfast now.
- I hope you're gonna like it. Just a little bit,
- I'm not gonna be the Judge.
- Oh no, no. A tiny bit, a pinch so I just of salt, sea salt.
- Yeah.
- If I can get some out. Oh come here. It's gonna be awkward. Try and get it out into a
- Shake it up and down in your hand, it'll come out.

- There we are. There's a pinch. I don't think Delia Smith needs to worry, does she too much? And then, last but not least, two teaspoons of ground linseeds. So, these are adding fiber and some essential fats as well. And you can buy your linseeds ready ground, or if you have a NutriBullet, you can just buy whole ones, which are a lot cheaper,
- And grind em up with the grinding attachment.
- And grind em up in there. Then, we top up with milk. And you can use skim, semi-skimmed, whole milk. We've got skimmed here
- Blech.
- Because that's what I brought. Or you can use the non-dairy milk substitutes, if you prefer those. In it goes, and this recipe is on the handout.
- Now we've mentioned the handout a couple of times. That's not available on the website yet, but like all our shows, we will be putting that out after we put the final recording up which will be sometime tomorrow probably and any other supporting material as necessary.
- So this one,
- This is where I have to stand away I think.
- works just fine with an ordinary stick blender, so I'll make a noise now. A bit more.
- Good, so that's nice and quick.
- Yep.
- So now we're gonna invite our taster-in-chief to come and join us. Matt, would you like to come and join us? I'm going to get you to, stand here next to Natalia.
- Thank you very much. I could tell you one looks more appetizing than the other.
- I know it's a lovely, lovely shade of green, isn't it? Matt, we introduced Matt earlier on. Matt is the butler at the entrepreneurs circle. He's a fantastic man who just makes things happen for everybody.
- Here's some of that one. And, you're gonna be the judge of which one's the better one.
- [Matt]
- I made this one. It's a really nice one.

- Well, okay.
- There you are.
- I'm gonna go for this one first, I think.
- Why is that?
- Yeah, that one's for pudding.
- Would you have that for breakfast?
- Do you know? With the pineapple, that would be wonderful.
- There you are. Glowing recommendation.
- It's not bad as it is.
- I'd add some protein as well. Now that I've been told.
- Now you peaked my interest in Green and Black's, to be fair.
- Well, I hope you like that one.
- He's not saying anything.
- That's really nice. That's,
- Thank you.
- They're both really nice.
- Yeah. Would you have that for breakfast?
- Very different.
- That feels a bit too indulgent. I mean, yeah, nutritionally you could but I'd have it more as a pudding, I think.
- Right.
- Or a kind of virtuous pudding.
- Would you have that for breakfast?
- Well, I was just about to ask few questions because I get into the EC about 7:00 a.m.,

- Yes.
- which means I don't really have time for breakfast at home.
- We're gonna talk about that aren't we?
- We are.
- So, if I was to persuade Nigel to get us a NutriBullet, for eating veg in the morning, would that take me through to about lunchtime?
- Oh yeah, easily.
- Yeah?
- Yeah, you don't even need the NutriBullet for that. You can do that with one of these.
- I think we've got one of,
- This is, this is easier though, isn't it? In terms of
- Yeah.
- sloshy out under the sink there
- Yeah.
- But anyway. We won't try and sell NutriBullets to Nigel at this point.
- Well thank you,
- Thank you very much Matt. Your second appearance on this evening's show.
- Thank you very much.
- Let's go back then and talk about some of the questions, which have almost certainly come in while we've been playing around with our food stuffs. You can have your seat Natalia.
- Yep.
- So we'll put the recipes for those things up later on. Hopefully, if I can ask you to give us some sort of nutritional breakdown on those, which we can put into them as well. And with the handout that has been produced, there are a number of recipes. I can't remember how many now, but you put out a half a dozen?



- There's three protein shakes,
- Yeah
- a sheet of snacks, snack ideas.
- Yeah, so I have to say, that I switched to NutriBullets some time ago and I was warned by people who've got them, oh, you'll lose interest after a couple of months. I think they're brilliant.
- Umm.
- I think it's a fantastic, but I will add the protein,
- Yeah.
- Cuz' that will be good. You, we talked about breakfast there fleetingly.
- Breakfast, yes.
- And when we discussed this interview some days ago,
- Um-hmm.
- you had a particular view I think about people not having breakfast and,
- Yeah.
- And you said they're golden geckos of the world.
- I'm sure there are people who get on just fine without breakfast. But they're not usually the ones who are coming to see me. My experience is generally that, people who don't have breakfast are, all things being equal, less well, less healthy than people who do have a decent breakfast. But it can be quite difficult to persuade people into a reasonably substantial breakfast.
- Yeah, okay. We've had actually a couple of observations in what we were doing a minute ago.
- Uh-huh.
- First of all, somebody has sent in that we should put some nut, seeds, and cacao in it for protein and I think they mean in the NutriBullet thing that I made. Nevermind I'm particularly unscientific about the way I go about these things. And I like to keep it simple so we'll do that. And someone, the question's disappeared. Where's it gone? This came in before we did that, and another viewer has said, what are your thoughts on protein drinks because they say, we were taught that excess protein is

converted to fat, but we're all being told to drink them even if we're just going for a walk to build muscle. Do protein drinks actually build muscle?

- Nah.
- So who's all these body builders then? They're always heavily into protein drinks.
- Well, if you are, you need two things to build muscle. You do need enough protein coming in, yes. You also need to do the muscle building exercise.
- Yeah, yes.
- So just going for a walk is not going to build an awful lot of muscle. It's a nice thing to do and it's good for you, but it's not going to build masses of muscle. Those guys in the gym doing the weight training and the body building, they really are nutritional experts
- Yeah.
- on what they're doing. They always,
- But it's activity specific, isn't it?
- Yeah.
- They'd probably be no good advising somebody who's diabetic or,
- No.
- whatever else.
- But they certainly know there stuff in terms of what they need.
- We got some complicated stuff coming here too.
- Okay, oh dear.
- First of all, an observation. Someone says we should look for molecularly distilled fish oil. I don't know how you see it, you notice it when you see it. But we got to go looking for it, someone says. What's that?
- Not something I've come across.
- Whoever sent that lovely observation in, umm, tell us what's the
- Yeah.

- significance of molecularly distilled fish oil, cause I don't know. Diana has sent in an observation that sugar seems to have been deemed the new evil, and do you subscribe to that idea? Is it true to say that there are some better sugars, such as agave nectar?
- Agave nectar?
- Agave.
- Agave nectar.
- Agave nectar, thank you.
- My view on sugar is that okay, in an ideal world, we'd all be better off if we didn't have it. However, we're all addicted to it by now.
- When you say sugar, do you mean refined sugar? Or do you mean any sugars of any sort?
- No, I mean the refined sugars that pass into the bloodstream very quickly. So the sugar in an apple or in your raspberries and blueberries, it's still sugar and you can overdo it, but the real problem is with, it's with the imbalance.
- Yes.
- Sugar is natural, it's around us. But actually being able to access large quantities of it, kind of ready, what word am I looking for? Um, in the form of just pure sugar, is not something we've actually evolved to cope with. Our distant ancestors may occasionally have managed to get some honey, but they had to fight bees for it. So they didn't have it very often.
- Yes.
- They couldn't go down to Morrisons and get biscuits and chocolate and Coke and all those things. And just keep the sugar coming, keep the sugar coming. So there has been an imbalance built up and that causes problems. Too much of anything will cause problems.
- I hope that's helpful to Diana, who asked the question about sugar. But you mentioned our distant ancestors there, and of course, one of the new diets, something that I would call a fad diet, is the Paleo Diet. The idea that we should start eating the things that our caveman ancestors ate. I have to say, I'm instinctively extremely skeptical about that but it may nevertheless be a healthy diet.
- Um, it's an interesting one. I had a look at, you mentioned the Angry Chef, when we spoke

- Yes.
- Yesterday. I had a look at that. And, um
- It's a book if anybody's interested, the Angry Chef.
- and a blog as well.
- And he writes about foods that are faddy and not actually good for you. And he talks about all the nonsense which goes around in cheffy and nutritional circles. Not nutritional circles, food circles.
- Yeah. And there is an awful lot of nonsense. And his anger, which I share, is aimed more at people who are trying to promote a very narrow version of a particular diet. Umm, instinctively I like the idea of paleo diet. That as humans, we were evolving for hundreds of thousands, indeed, millions of years, on what we could hunt and gather. And then about 10,000 years ago, we invented agriculture, which changed everything. It changed our diets, massively. Suddenly we had lots of grains to eat, which we hadn't had before. We might have had the odd wheat berry, as we walked past a grass plant, but we wouldn't have had bread. We wouldn't have had these large quantities.
- Yeah.
- And some people cope with that better than others. And the idea that we might be healthy if we stuck to the sorts of foods that our bodies have evolved to recognize as food has a lot of sense for me. But you also get the proponent who will say, oh you must have organically raised bison meat. And why? That doesn't make a lot of sense. You get quite doctrinaire about well a paleo diet is this, and you may not have that.
- I think the Angry Chef was, one of the things I heard him say about the paleo diet specifically was that we don't really know what the paleos ate.
- Yeah, a colleague on mine put it absolutely beautifully. She says, we don't know what our distant ancestors ate. We can't know. But we do know what they didn't eat.
- Yes.
- So we know they didn't have pizza. We know they weren't stuffing their faces with ice cream. We know that, yeah, they didn't have refined sugar. And taking that as a common sense way of looking at it makes a lot of sense to me. Is a paleo diet, could have been a paleo diet in Papua New Guinea? It could have been one in Birmingham. It could have been one in the arctic circle. Totally different. But none of those will have had a lot of refined sugar. Will have had bread, will have had masses of grains in them.

- If you are an ice cream addict, and I put myself in that category, you could console yourself with the thought that we do eat ice cream now and we live a lot longer than are caveman ancestors, so may be unrelated,
- That proves it.
- It does prove it, yes definitely if you're in the Daily Mail, it probably does. Couple a questions about, you're right, I shouldn't say that, should I? Gosh,
- Oh go on.
- Comparative benefits of shakes versus blended ingredients because this viewer has said that they've always understood that blending ingredients broke down the fiber and concentrated the sugars.
- Well, we've, my understanding of shakes is that's exactly what they are. You just, shakes and blended things would be the same.
- Yes.
- Now you are to an extent, get this two ways of looking at it. In one way, when you blend all that up, you've kind of replaced the chewing, which is the first
- Digestive
- part of digestion. And also the part that we have, the only part we have conscious control over. And you make it easier for the rest of your digestion. That's all beautifully chewed and it's in a good state for your stomach and then your small intestine to start really getting to work on by squirting it with enzymes and acids and breaking it all down. On the other hand, the business of chewing sends messages down your digestive tract saying, look out, here it comes. Get ready, here comes the food. And you lose that when you just knock back a shake so that will then arrive in your stomach, which wasn't pre-warned that this was coming. So that
- Could that be detrimental? Or does it matter?
- It could be sometimes. Now and again, it doesn't bother me. I think it's again, it depends on your own digestion. But if,
- It's funny how often everything we talk about on this show, everything's individual.
- Yes, yes.
- There's no secret bullet, no silver bullet for everyone, is there?
- Never is, is there?

- I'm rushing on a bit because we got a load of questions. Again, going back to your concoction over there. Is it important to use whey protein? And surely using a protein powder is not a natural food, so what natural food could be put in the shake instead of the protein powder?
- Yes.
- So, two questions.
- I agree. The whey protein powder is kinda cheating. I tend to preach eat real foods. And that is quite a processed product, but it's kinda useful. There are other protein powders as well. It's worth saying that. There's the soy, rice and pea are all good ones.
- No particular?
- Different tastes, I always find pea protein really hard to stir into things, it seems to be kind of waterproof and it bounces back up to the top. And it has quite a savory taste, which might be a bit odd in my chocolate banana one. Might go better in your, or in a more savory shake. Now in terms of what you can put in to increase the protein content without using a processed product, you won't get the same concentration of protein really with anything else. But, some plain yogurt. Perhaps some organic greek yogurt.
- In terms of you put, how much did you put in? Two of those scoops? One of those big scoops of
- Yeah, it's a 30 gram scoop,
- whey protein
- which gives you 23, 24 grams of protein.
- How much plain yogurt do you need to mimic that?
- Umm, quite a lot. Plain yogurt, greek yogurt, so that's been strained is about oh, 10% protein by weight. So you'd need,
- Quite a bit.
- A lot.
- Yeah.
- Yes, sorry my math's just went. You would need quite a lot. Nuts can be reasonably high in protein although you're getting more fats there. Yeah, what else would you

put in? You could put a raw egg in, that would give you some protein if you fancied that.

- Okay.
- Lot's of sort of traditional drinks and hangover cures
- Yes, yeah absolutely
- with raw eggs in them, prairie oysters and the like. See, you will get a certain amount of protein with that, but perhaps not the concentrated hit.
- Now, one of the things in here. One of the ingredients you put into your shake you said has been shown to lower cholesterol. What that the linseed?
- It was the almonds.
- The almond butter, right.
- Although the linseeds as well, actually.
- Right.
- Yes, you're right, yes.
- Right, so that's useful if you believe that lowering cholesterol is a useful thing to do, which is something I'm not entirely convinced. Well, you're the expert on nutrition.
- I don't think I actually said lowering cholesterol, I think I said regulate cholesterol.
- Right, okay.
- Because yeah, the drive to just lower and lower and lower cholesterol as, particularly total cholesterol, as a number is quite damaging.
- Yes.
- There have been studies that have found greater rates of suicide and violent death in people with cholesterol below about three and a half millimoles per liter. And yet, I hear of doctors, GPs trying to get people's cholesterol levels down to four and a half and lower.
- Yes.
- And you can't go too low in the view of some.
- And of course, that's probably not true.

- We probably ought to leave the discussion of cholesterol for another day. Perhaps you have cardiovascular issues specifically and whether the research actually stacks up.
- Oh, that's a good one, yes.
- Yeah. Could you describe the physiology, we're going back a bit here, physiology of migraine. What's the causal chain of events between a trigger food and the disturbed pathology?
- Oh crikey, that's a very complex issue. Actually, no I probably couldn't. Not complete causal chain of events. Certainly, there is
- But it may not be
- Inflammation
- nerve, that's not some reflection of
- Yeah, I don't think it's fully known. Certainly at one point, there is a release of platelets or platelets start to clump in the bloodstream. That's one that I work on herbally with the herb feverfew, which can actually reduce that.
- Yes.
- And abort an impending migraine. And activation of pain centers generally. But no, I don't think I could actually trace that through,
- Okay
- because it is,
- Oh, alright.
- Yeah, you're right.
- That's fair enough.
- I'm not sure that it's actually known.
- There's a question here which is anonymous but I know it's Ruth, because actually this comes from Ruth, who works, a fantastic osteopath who works in my clinic.
- Uh-huh.



- And when I was discussing the broadcast with her yesterday, she said I want to know how much water we're supposed to drink per day. So you should sign off your messages Ruth, and tell us who you are. But anyway, it's a good question, isn't it?
- It's a good question.
- Because we're told, liter, two liters, whatever it might be. How much?
- Um, the average person, who does not exist, obviously, loses 2.3 to 2.5 liters of water from their body, per day. That's coming out in urine, in feces, in sweat, on the breath. Now, obviously that goes up in hot weather, or with vigorous exercise. Physically larger people tend to lose a bit more because their bigger surface area. But, that's the sort of ballpark figure. So that's what you're looking to replace. But you don't have to drink that much fluid because quite a lot will come from your food. You start a day with the shake, you've actually got quite a lot of fluid coming in from there. Most fruits and vegetables are at least 80% percent water. So if you eat a lot of fruit and veg, you'll be getting it from there.
- Yeah.
- And then, for the rest, yes, you need to be replacing that with plain water, with tea, even coffee, actually up to about four cups a day has been shown not to have too much of a diuretic effect, although that will again vary from one person to the next.
- Yeah. Well, I can speak from personal experience. If you drink one of those shakes and then you have a cup of coffee inside you in the morning, it's very hard to sit down for a very long You don't need long meetings after you've done that, I can tell you.
- You get your exercise then.
- I just want to read this out because whoever sent in the question earlier on has sent in some beautiful information here. Molecularly distilled fish oil is considered the gold standard of purifying fish oil of the contaminants found in the body and/or livers of the fish. Good quality fish oils will mention it on the packagings. So, thanks for that.
- Thank you.
- That's useful to know. And we've done that one. Is there any creatine in the whey protein or other protein powders that you use?
- No.
- No.

- You can get mixed ones. Again, usually for sports use. But that's just a protein powder.
- Okay. And keep on, I'm rushing through these. I'm very conscious that we want to try and answer as many of your questions as we possibly can. This came in quite a while ago. Can you tell us a little about FODMAP?
- Oh, yes.
- In the military 40s, foreign object damaged.
- Is that?
- Really?
- Yeah, it's used in terms of aircraft damage.
- No, not quite the same. FODMAP stands for fermentable, oligo, polysaccharides, oh crikey.
- Somebody has worked really hard to invent this acronym.
- Yeah, it's a horrible acronym.
- Alright, what's it about?
- Something and polyols. This is a diet that can be very useful for IBS patients. Although it has to be used with a certain care. The theory behind it is that certain carbohydrates are particularly, can be particularly difficult to digest. And especially difficult for some people. So those include lactose, the milk sugar. The starches in wheat and some other grains. Polyols, which are found in mushrooms and some fruits. Fructose, fruit sugar can be another problem one. And also substances found in beans, peas, and lentils. And also in the cabbage family. Not everybody gets on with the cabbage family. And the theory goes that, for someone who has difficulty digesting these, so they take them in, chew them up, swallow them. So they go down to the stomach, then they go to the small intestine, which is where they're supposed to be broken all the way down to everything except the fiber and absorbed. And then all that gets down to the large intestine, which is the end of the digestive system is just the fibers and any bits we didn't want. If they're not properly digested, then other things reach the large intestine. The home of the famous friendly bacteria and indeed rather less friendly and in some cases, downright hostile bacteria. So these bacteria don't really know what to do with this stuff, so they start fermenting it. That can cause gas, pain, bloating. Can lead to either diarrhea or constipation or alternating diarrhea and constipation. So the idea with this diet is it's the low FODMAPs diet is to remove the potentially offending substances. When I use it, I ask people to do it for two weeks. I give them a seven page handout on how to

do this because the foods to be eliminated are not logical. They just are. So tomatoes are fine, but asparagus isn't. How would you guess that?

- Yeah.
- A great long list of them. And they look at this thing, and go I don't think I can do that. Send them off. They tend to come back two weeks later saying I'm staying on this diet forever because about 2/3 of IBS sufferers, it changes everything. It gives the whole system a rest and they just feel great. At that point, I then have to persuade them to start trialing individually the different groups of FODMAPs to find out what's actually giving them a problem. Because if they don't personally have a problem say, with lactose, there's no point them avoiding dairy forever because they're fine with it and they'll never know until they try it. And then, basically whittling it down to well, what are your personal problem foods? So it can be very useful. All by itself, it is not a particularly healthy diet. It excludes too many fruits and vegetables but as a therapeutic diet, for a short period, it can be extremely useful.
- I hope that's useful. I am under some pressure to ask you about turmeric. And coconut oil. Now, are they are good as the publicity, their press agents tell us?
- Turmeric's great. It is quite markedly anti-inflammatory. It can protect, it helps protect us against cancer, heart disease. There's good research.
- It is, yeah. Good research.
- There's some very good research. Often coming out of middle eastern Asia, where
- Turmeric manufacturers.
- much more, that and also it's much more something that they're in tune with.
- Yes.
- Because it's used a lot. It's in the traditional medicine systems and theyit's good for you.
- I haven't heard of this one. Somebody has a, connected with turmeric. Someone's asked about piperine?
- Yes, right. So, turmeric is not brilliantly absorbed. The supposedly active constituent, although actually, there's lot of active things in turmeric. But they, supposedly active constituent, curcumin, that you hear a lot about is not brilliantly bio-available. Most of it doesn't get absorbed. If you have it with some pepper, which contains piperine, that will up its absorption, by I think it's a factor of a few hundred. Also having it with some fat, so if you think about you know, a curry, you've got pepper in there. You've got fat. The turmeric is going to get absorbed. And it does have masses of health benefits. Quite often, if I'm using it medicinally, I quite often give people tablets

because it stains and that is a real problem or can be a real problem. But yeah, it's great stuff. Ginger is quite similar and another one that I use a lot of.

- And ginger often goes into my breakfast smoothie as well.
- Yeah.
- It adds a nice little bite to the mix.
- Yeah, and it's fantastic against arthritis for example. It's wonderful. So, coconut oil?
- Oh yeah, coconut oil. Sorry, yeah, I forgot.
- Yes, this one, is the American Heart Association came out with a report recently saying coconut oil is no better than beef fat. I will second that because I don't think there's anything wrong with beef fat. They've, it, big headlines this week.
- Unless you're a cow, of course.
- Yes, if you're a cow, you might have a problem with it because you're a vegetarian anyway. Big headlines this week on that. There's some good critiques of their report out there. Basically, they've gone back and looked at four big studies from about the 1960s that concluded that saturated fat was bad for you. Coconut oil is probably the most highly saturated fat you'll find anywhere. More saturated than most animal fats.
- There is studies into saturated fats have been widely debunked I think, haven't they?
- They have.
- Because in fact, saturated fats is probably one of the better fats for you. Certainly, the polyunsaturates have really gone through the mill, haven't they?
- They have. Certainly for cooking. Saturated fats because of their chemical structure are very stable. And so you can take coconut oil say up to a really high temperature before it will start to smoke. It's brilliant for doing quite high temperature cooking.
- Yes
- While something like sunflower oil, which is polyunsaturated, is liable actually to be damaged by the heat and can then become toxic.
- Yeah.
- So, I really like coconut oil and as far as I'm concerned, saturated fat is fine. It's a red herring. The whole saturated fat is bad for you.

- Now, we are, I think we're sort of five minutes from having to close this. I'm tempted just to push on a little bit longer, if you're happy to do that.
- Yeah, sure.
- Now you can get your certificate for 90 minutes of learning with others. But I've got so many questions this evening that I really don't want to close before I've answered as many of them as I can. So, stop sending me more questions and I'll deal with the ones I've got. Any other questions? We're changing the way we do things with our discussions. This is, now I'm going to continue after the broadcast, we'll be posting people's comments and posting responses to those comments. So our discussion as therapists can carry on. And where we can get Natalia to intervene with that or add her own expertise and we'll also do that. So, there will be more comments to follow after the broadcast has closed but, Are you concerned about soy products in terms of their potential estrogenic effects?
- Soy is really interesting. Estrogenic effects not particularly. They do contain high levels of phytoestrogens, and I wouldn't necessarily give them to small children. Soy or baby milk, I'm dubious about. However, there are many different forms of estrogens. The ones in your own body, there are three main types if you're female. More like, sort of two, if you're male. And the main, the predominant estrogen during the childbearing years is very, very potent. It's like a million watt light bulb when it docks with the cell, it sends the cell into massive activity. It's very, very strong. It has a very strong effect. But two others, which are much, much less potent so you know, you're down to, the last one, you're down to about a sort of eight watt light, energy saving light bulb that you're tripping over in the dark, really. Much, much less strong and then you get to the phytoestrogens, which are something like 1,000 to 10,000 times less active, again, than endogenous estrogen. So, any of these can dock with the cell, and occupy a receptor. And that means that the phytoestrogens and the weak estrogens have a sort of dual effect. In someone who has excessive levels of the very, very strong estrogen, they can sit on those cells and occupy the receptor site and keep the very strong estrogen from docking and having it's effect. So they can actually reduce the overall estrogenic activity in the body. However, in someone who is low on estrogen, say during menopause, they can add a little bit of estrogenic action when it's needed. When estrogen is very low. So they have this sort of modulating effect. There is some work coming out now that is finding that the traditionally eaten forms of soy are generally quite beneficial. Tofu and tempeh, which is a fermented soy. They're generally fine, they have health benefits. Things like soy milk, which is just smooshed beans, perhaps less though, there are some question marks about that.
- Okay. Let's wind up with one or two observations. I had a question here from Diana a minute ago and I think it's disappeared. Gosh, someone says they've just come home in time for this broadcast and now you're making me feel bad about making my custard cream biscuit dinner. They haven't written their name, thanks very much. I like this one, since I know which of our regular viewers has sent this in by the tone of the question. He says, I say he, maybe a she. Please confirm that the alkaline diet

is trend driven, superiously referenced nonsense, thank you. Not that he's trying to lead the witness there.

- That's how I tend to see it. It's very, yeah, it's come back into vogue. About 40, 50 years ago, there was a big thing about not becoming too acid and acid was the root of all evil and it seems to have come back. The body knows how acid or alkaline it wants to be. Stomach acid is something like pH two. It's about the same as car battery acid. It's incredibly acid and if it's less, you have health problems. The blood is kept to within a very, very narrow pH range. The body works very, very hard to maintain that and if it strays outside of that, you get ill and die. The food you eat doesn't have a massive impact on your acidity or alkalinity. I think there's some really strong research behind that, isn't there?
- Yeah.
- The same with cholesterol levels as well. Eating cholesterol does not raise your cholesterol level because the body is so good at regulating itself.
- Dietary cholesterol usually counts for about 25% of the total, and the liver is manufacturing the other 75% from raw materials its given. And the basic raw material for cholesterol actually is not fat, it is sugar. Which is interesting.
- Well, there's an interesting One of Malcolm Kendrick's books and we interviewed him a couple of times there a year or so ago. And he says there is no chemical method by which you can convert cholesterol into, fat into cholesterol. It can't be done.
- It's not a fat. Cholesterol is not a fat.
- Yeah, exactly.
- And, yes, so if you 75% made by the liver. If you eat more cholesterol, it will make a bit less. If you eat less cholesterol, it will make a bit more. The liver's not stupid. I've got, we'll do one more question because I've got so many on the list here. Which if you don't mind, I'll put them to you afterwards and we'll see if we can,
- Yeah,
- keep the conversation going. Do you have an opinion on gut integrity or leaky gut?
- Yes.
- Good, that's the, that's not really a full answer, is it?
- Yes, it's a thing.
- Yeah.

- And yeah, I do a lot of work healing up leaky guts.
- What's the mechanism?
- The mechanism for?
- What's your approach to dealing with it?
- To give them lots of gut healing nutrients and herbs. So turmeric is a key one, licorice, Vitamin A is important. Zinc is important. Quercetin, which is an anti-oxidant found in apples and onions, but can be got as a pill as well, is a useful one to use. Trying to make sure that the diet doesn't enhance leaky gut. Cutting wheat out of the diet can be really important.
- Yep.
- Gluten has been shown to make the gut leaky for at least an hour after ingestion in everybody. Some people, depending on your genetics, it can be up to four hours. It can leave the gut quite leaky. That means that stuff that shouldn't be getting through to the bloodstream can get through into the bloodstream. That will then activate the patrolling immune system, which is seeing things there that shouldn't be there. And it gets very alarmed and very jumpy. And can set up a systemic inflammation.
- I do apologize if we haven't had time to answer every question. We haven't had time to answer every question that's come in and I'm sure there are still more in the audience's mind. One from me for you,
- Hmm?
- We did this broadcast on the basis, on the background, of your talk to the IO convention about migraines and then it suddenly a really good thing to do. We've also set up a one day nutrition course.
- Yeah.
- And I've been asking my team for the last X minutes, when is that course because I can't believe I can't remember the date of the course. But, what are we going to cover on that course? Why is that going to be really good for us in clinic? And it'll add more to what we've got here.
- We can go into more detail.
- Yes.

- On more things. We'll be going looking at those macronutrients. At the fats, the carbohydrates, the proteins. The quality of those, the quantities of those. How to get an idea just when asking someone about their diet, are they getting enough of all of those? How you talk about the diet with someone. The importance of vitamins and minerals. Are people getting enough? Are there any useful supplements that you can be recommending? And why would you do that?
- And I think that's the important part about this, isn't it? Is taking away how to make a useful assessment in our own
- Yeah.
- clinics, but then offering some really constructive
- Yeah.
- advice in greater detail than we have from what we've
- Yeah.
- had the chance to do in an hour and a half today.
- And it is actually quite remarkable because we eat everyday, most of us. And your diet can either support your health and be good for you or it can undermine your health and quite small changes can make a big difference to people. So, what I'm hoping to offer really is some quite small interventions that won't take up masses of an osteopathic consultation, because it's not about nutrition, it's about osteopathy. Quite small things that patient can take away. They're not intimidating to do. They're thinking, yeah, I can do that. Just something little like have two or three dried figs after your lunch at work either instead of the biscuit or maybe just before you have the biscuit. And those will be satisfying a sweet tooth. They'll be providing some quite useful vitamins and minerals and quite a lot of fiber. Just a little thing like that that someone can do. Those sorts of things, that are adding value to the consultation, patient can come back and say, you know, I did it and I do actually feel better. And then, that's got to help, you know, your credibility, your relationship with the patient.
- Yes. And what it contributes to their overall health, which is what we're about, isn't it?
- I'm not suggesting
- We're not just about cracking joints and rubbing muscles.
- Yeah.
- It's overall health that we want to address.



- Yeah. And just going into the nuts and bolts of nutrition. So that when you do see that headline in the Daily Mail, or whatever. You know where to start in deciding, do I believe that or don't I?
- Yes, and that's I think is useful for us to be able to tell patients why they should or shouldn't believe what they've read in the paper. Natalia, I have taken more of your time that we agreed and I know you've got a long drive back. It's been fascinating. The volume of questions this evening has equaled, if not surpassed, any of the other broadcasts that we've done.
- Really?
- So it's clearly an issue for many, many therapists in clinic. So thank you very much for taking the time to come out.
- Thank you for inviting me.
- I'm really looking forward to that course in, whenever it is.
- November
- My team, November, thank you. My team was so busy answering questions they couldn't answer my question, which I sent into them. Give me just a second of your time before you sign off. Don't worry about the certificates, it's all going to work perfectly smoothly. I know it's going to work smoothly this evening. On our website there are a number of courses, which are filling up rapidly. They are really, really useful courses. I don't need to mention the value of Laurie Hartman, or Stephen Sandler, or Simian Niel-Asher and now as you've seen, Natalia Kerkham. One new one that's just gone up on the website, you may be aware that I run first aid courses. They are very popular; they are in great demand. I don't run many of them. I'm running one in London for Michael Kern, a craniosacral osteopath and it's full and lots more people wanted to book onto it. He's talked me into running another one in October. And I think it's October the 12th, it's a Sunday. It's in Queens Terrace I believe, which is west London, somewhere. There are still some spaces on that but I assure you, if you want to go on that first aid course, the qualification lasts three years and it will be one of the best first aid courses you've ever done. Ask anyone who's been in one of my courses, but, don't forget, nutrition course in November. Have a look at the other courses. Next time you talk, you see us, we'll be talking about marketing. Not in a nasty way, we're talking about using social media to make your skills known to the wider public that you can help more people and also, of course, fill your own books. We've got Jelly Woodhouse coming in to do that. She's coming in at short notice because one of our other speakers has had to postpone her talk, but join us again in a couple of weeks time when we're going to be talking about social media and marketing in general with Jelly Woodhouse. That's all for this evening. Thank you for your time. Thanks for sticking with us for a few extra minutes this evening. Good night.