I brought everything that I could find in the supermarket that was making a claim that it was good for me

And I want you to take a look at it that Tim Spector is definitely

Healthy or not avoid that one terrible completely rubbish not as bad as the other one, but then We're gonna unravel all these secrets the return of the world's biggest gut health expert professor Tim Spector

He's an award-winning scientist best-selling author and he's co-founder of the company Zoe the home kick the personalized nutrition

Everything I'm about to throw at you has a whole industry of people behind it. The first one is protein supplements

Protein is massively hyped

Most people are having nearly twice as much protein in their diets as they need and most of it will be converted to sugars and fat

Coffee is definitely a health food and you'll live longer mouthwash

You're more prone to infection and actually worse smelling breath long-term really

Yes, no hard data that you should be drinking eight glasses of water a day ten minutes in the sun will get you all the vitamin D

You need and there's some actual data showing that if you've got too much excess fat on your body Exercise alone is a terrible way to deal with it. You need something radical you and many others like you are a victim of marketing

But we are in a fiber crisis

We think only about one in 20 people are getting enough fiber for good health as a dramatic effect on avoiding cancers

Mental health and your longevity. So you brought this. Yep. That's the magic potion a handful of that You reduce your risk of death by 14 15 percent two handfuls of 30 percent and it's incredibly easy to do so

Tim what is the benefit to me if I

Changed the way that I'm eating and start thinking through the lens of my gut microbiome and start taking the advice that you talk about in your

Books, what is the benefits both for me and society in terms of statistical like outcomes look? Why does it matter?

It matters because we are suffering an epidemic of common chronic diseases. So we're getting increases in cancer heart disease

diabetes obesity

We you know

Majority of the population are overweight or obese that has enormous consequences

Also on our economic output

It costs the country and the taxpayer

nearly 60 billion pounds a year as a country

We don't want someone like you to become unhealthy and so that it's difficult for you to work You're not functioning properly the state then has to provide for you extra health care, etc. There's that

Individual level, but also we don't want you to get mental health diseases depression

Anxiety all these things that we know are also linked to poor diet as well as increased cancers and and other

Elements of it. So it's it's a combination of the medical

The mental the social the economic all these things are related to having good nutrition

And I think we've taken it for granted that it doesn't really matter what we eat

It's all about weight and these things, but that's maybe only the small side of it

I think there's much more to it than that someone like me

I'm you know 30ish years old and I'm I like to think that I'm in good shape. I exercise every day Very active

So sometimes I think I can fall into the trap of thinking because there's no obvious sign of disease in me

that I can eat what I want because I'm working out and

Then I sat here with a doctor a couple of a couple of months ago

And he said a sentence to me that sounded something like we can see disease growing in you decades out

That really made me change my thinking on

health

Because if it is like a seed of health or a seed of disease that's growing in me

Irrespective of my current physical abilities and my you know, I think I'm in good shape

It's kind of like compounding invisibly inside of me disease for better or for worse

And that means that even someone like me I can I can stop 50 year old Steve's disease now at 30 by making

Nudging my health in a slightly different direction in terms of nutrition

Is that an accurate assessment of because there'll be people that are listening that are so healthy Apparently healthy on the outside because they can run fast or because they haven't got any problems with their bones or back

Yeah, well when I was your age, I didn't think at all about my nutrition really

You know, although I was trained doctor, etc. I said I don't too much fat

I want this and you know, I'll try and get a nice looking steak rather than the cheapest one

But I I didn't think in that way that I wanted to

Look after my health in 20 years time

It's a tough concept for people who are, you know doing so much else and still feeling good

They're you know, still getting out of bed fresh in the morning energized and not really feeling the effects of of aging

So I think it's true, but it's quite a tough concept to sell to the whole population  $\[ \]$ 

particularly people in their 20s and 30s about the future and

That's why I think

Focusing on things like mental health do resonate perhaps more than saying

Think about what you're gonna be like when you're 50 to most people

I've spent definitely the last 10 years of my life believing that in order to grow big muscles

Which has been an aim of throughout my life. I need to have protein supplements

What do you think about that? I still have protein supplements in my house protein powders come home from the gym

Big scoop of protein

drink it

What do you think of that?

Protein is massively hyped

There are very few people who are protein deficient in this country and need supplements

There are a few but I would say it's less than five percent of the population

are not getting sufficient protein to

perform either their normal activities or like you build muscle

Because it's so inherent in our normal food. We evolved you know to be omnivores and to get enough protein and

our ancestors didn't fall apart because we didn't get protein shakes and

I think

the the fact that we're focusing on protein is you you and many others like you are a victim of marketing that

Every way you look at the moment

Protein is the thing that sells products. It's got protein on the pack

It's you know, that's ringing of all I need extra protein and protein has this

ring of

Only good about it. There's nothing bad about protein

it's like just gonna get me big and strong and

I don't worry about calories or getting fat, you know, I use it or lose it and that's fine and it's completely wrong with the all the evidence is that

Most people are having

Nearly twice as much protein in there in their diets as they need for normal protein balance and The only people that really need to worry are if you're

Elderly and you're not eating very much. Okay, so young people generally out yourself

Will be getting enough food that a percentage of all that food is going to contain protein. There's very few foods that don't contain protein

People don't think about it, but every time you're eating pasta or a grains you're eating protein it doesn't have to be steak or eggs and

But the elderly if you're not eating you've gone off your food. You're sick. You've got you know, you're on some medication

Might need some extra protein sources or to focus on it or if you're a strict vegetarian or vegan In that position where you're not eating much or you're sick or you're elderly then those people do need something

now if you are a bodybuilder and

Again, you're you're trying to lose weight at the same time

Then you might need some protein supplements

But if you're eating a normal diet, there's no evidence the vast majority of people need any extra protein

they can get it all from normal food and

Normal food in my opinion is much better way of getting it because

That's how our bodies have evolved rather than getting in a drink or a supplement or a powder

Where it's often mixed with other chemicals

It's not in its natural form. We're not sure that it's all used and the excess protein you have isn't for free

protein gets broken down and

It either gets eliminated in your body or it's stored as fat

As it gets concerted to

Sugars and then to fats so people think of protein as only in muscle and if it's not going to my muscle I just pee it out. It doesn't matter not the case if you're having lots of protein that you you can't use up in your muscles

Because you're already got so much on board. You can't store it anywhere

it

Some of it gets eliminated, but most of it will be converted to sugars and fat

This goes against everything they told me

Because I thought that you could have as much protein as you like your body can't store it

So I must just be like pooping it out or something. I don't know

Can't store it as protein. Okay, but it gets converted

Right broken down into small pieces and that gets stored in your body

For the future. So how much protein can I process in like a day?

How many grams of protein and how many kilos roughly in your way back? Oh 90

91 because there's people listening

It's all muscle

So around roughly that amount of protein

Because it goes with weight the more your weight is the more protein you need to to repair your muscles and and keep it going so

The official amount is normally around, you know, 0.8

Grams per kilogram. Okay, so but if we think you know, we want to be on the safe side

So most people are 95% of people. That's the a safe level

but most people

In this country are having like 1.4

Grams per kilogram so they'd be having for you over a hundred grams of protein and

Basically if you don't anything extra so you might do a little workout that might increase it a little bit Maybe 10% so you might be able to use

10% of that if you're doing a lot of weightlifting etc

But not huge amounts

So if you took 300

Grams of protein

Most of it is just gonna be either

You'd be getting rid of it excreting it in some way or it would be converted into sugars and fats stat I found here the average daily intake of protein in the UK is 76 grams per day for adults aged 19 to 64 and

67 grams a day for adults aged 65 years and over so that's how much on average people are consuming

With their normal diets. Yeah, so it's just a roughly depending on the size of people

It's just over a gram per kilo and they're getting that without protein. Most of them are protein powders just for their normal diets

I mean as an example my

You know my normal breakfast gives me I worked at it over 30 grams

of protein

Which is sort of what you want to kickstart the day

In order to get muscles repairing things, but if I took

You know an extra protein powder give me an extra hundred grams that really wouldn't

Have any effect at all other than

Slightly increasing my weight. What about fiber? I've got two questions here. What is fiber in? the most simple terms and

Is it why is it important and are we consuming enough fiber in our natural diets in the UK? So unlike protein where 95% of people are absolutely fine and not deficient in protein

95% of people are deficient in fiber

We think only about one in 20 people are getting enough fiber for good health

So this is the imbalance between the marketing people just don't make money on

Fiber like they do on protein. So all the commerce is going to everyone's protein deficient

You've got our protein protein protein protein, you know, who's supporting the spinach or the the Fiber people hardly anybody

We're

massively deficient in it. It is

The bits of carbohydrates the carbohydrates are made up of sugars starches and fibers

So fibers are the parts of carbohydrates that are not

Broken down absorbed early on in the system

So they go through to the deeper parts of the intestine

They meet the microbes and they have to be digested much slower

Much lower down your system and their food for your gut microbes

And you could be soluble ones. They've been insoluble ones

They're just different degrees of how hard it is to break it down and we used to think of it as roughage

It used to be called roughage when I was a medical student and junior doctor

You just eat this stuff and it was just to like clear out the toxins

it was just like you have this stuff it scrapes your pipes and

Cleans it up and that's all it was thought to do

But now we know it's absolutely crucial for health the average in the UK is about  $20~\mathrm{grams}$  of fiber

So if you just increase that by a guarter

Not very much five grams. That's

You know a handful of nuts or seeds or something a day you will increase

You reduce your risk of death by 14 15 percent

And if you did two handfuls of nuts 30 percent it each one it goes up

So has a dramatic effect on your longevity and it's also important for avoiding cancers and mental health

And nearly everything that we've looked at so it's really the forgotten element of our diet that I

Think at the moment. We're you know in a fiber crisis. We're certainly not in a protein crisis and yet Everyone's talking about protein. It's really it's

Really a fascinating interplay between you know what the real problems are and what the marketing and the commerce of this whole field is

So we need to improve everybody's fiber amounts all the healthy countries in the world are eating much more fiber

And it's also diverse fiber. It's lots of different things. It's not just

Having kale when you came on the podcast last time you said something which I found to be quite daunting

Which was this idea of trying to get 30?

Plants into my diet a week

You've brought some food with you today for me that you say can help me with this Jack. Could you grab?

The food that Tim brought with him today

So you brought this jar of what looks like a bunch of nuts and seeds

Yep, that's the magic potion magic potion. Tell me more. So this is what I call my diversity jar So do have a nibble, but basically there's about

10 different types of nut and seed in there

that

Each time I see

Some packet of mixed nuts or I find something new in a in a shop

I add it to that jar and I keep it full mix it around and that's what I throw on my

Yoga and kefir in the morning

Or I will put on my salad at lunch

and that basically is a hack that

Instantly gets me 10 plants for my week

So you're saying how hard it is to get to 30 plants. Well, just by doing that you've got

You've only got 20 to go

So you see you're a third of the way just by having a few hacks like that which

Incidentally also gives you your protein. Okay, so rather than your protein shakes and your whatever handful of that

You've got, you know

Significant amounts of protein, but the important thing for this is the 30 plants

People forget that a plant doesn't have to be doesn't look like spinach or kale

It can be a nut and a seed which are so nutrient dense and so useful that they will keep whole colonies of

Hundreds or fat thousands of different microbes happy in your gut munching on the different chemicals in there and they're very high in fiber

Very high in protein. It's going to say about the fiber thing. This is a this is a way to get the fiber as well

Absolutely. Yes, so they're high high fiber and high protein and that's why they are are so nutritious And why if you're having this sort of stuff, you really don't need

chemical supplements and so that that's a that's just one of

Several hacks about how you can add these to your foods very easily as well as you know Mentally just thinking I want to try and find

Add different things to my my meal. I don't want to have the same meal every single day People get stuck going to you know, they're local sandwich shop and saying I'm only having that prawn salad

Porn salad prawn salad, you know, just think every day go something different and If people start thinking differently about food

Not only does it excite the taste buds a bit more and gets you out of your rut

But it's also going to generate many more microbes. So, you know, if you're going to beat me

You need to be getting more diversity in there to to grow more species so that you can you know, keep them all happy and

They live, you know, they live off diversity and variety just as we humans do. So when I got my Zoe results back, I

One of the the PDF shows all the bugs in my stomach. Is that what you call them bugs?

More techno bugs or my microbes. Let's call them microbes then

Just because it makes me sound smarter. So all the microbes are my in my belly

And I had a very narrow group of microbes now if I you're telling me that if I expand that

Collection of microbes my overall health will be better. I'll process my food better. My mental health will be better

Is there anything I'm missing from that list? Your immune health would be better. So, okay immunity would be better

So you'd get me less food allergies. You'd guess

Resistance to infection would be better. So how do I bring it? I know this sounds like super stupid question to ask

But I looked to that list and thought okay, so I almost thought of it like little pets living inside me The where do these where do I get the new pets from?

Like the new animals from to put inside my body because I could I was thinking my girlfriend's got loads of them. I'll just kiss her

Yes

What you were you could kiss your girlfriend and there is quite a lot of swapping between partners by the way in microbes

So you're not wrong there, but unless they had something to eat

They'd die off. Okay, so what you're doing is

You know, we are continually surrounded by many of these microbes. We are swapping microbes with all our close friends and family all the time, but

Unless you've got the fertilizer in you, they're not going to survive and the fertilizer is diversity of foods

Yes, and you may have and you know, you've kissed your girlfriend

You've got some of her microbes and they're just sitting there waiting for

To be fed right there might be in a very dormant state

Many of these microbes can go into spore formation and stay there for years doing nothing in tiny amounts

And they only wake up when you know peanut hits them on the head or something and says oh, you

know

Stevens give me some food at last, you know, this I can eat this I couldn't eat the other I can't eat Nando's I'm going for this

so that's the concept that you want to

give them this rich soil so that they can flourish and

You can gain microbes from going to other countries, you know eating a variety of foods and there are

microbes that live on a lot of fresh produce

That you can get you get them from dogs

animals

Just by having a pet around the house or going to the countryside you can get more microbes in you but it's it's a lot of them are actually inside us waiting and

Places like our appendix may maybe sources of tiny amounts these microbes that are just waiting You know for the right signal to wake up. I find it incredibly fascinating that when we look at the back end of Spotify and Apple and our

Audio channels the majority of people that watch this podcast haven't yet hit the follow button or the subscribe button

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I would like to make a deal with you if you could do me a huge favor and hit that subscribe button I will work tirelessly from now until forever to make the show better and better and better and better

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We love if you could do me that small favor and hit the follow button

Whatever you're listening to this that would mean the world to me that is the only favor

I will ever ask you thank you so much for your time back to this episode I

After our last conversation was always going through the supermarket trying to figure out what's fermented and what's not

How do I know what's fermented? What does fermented even mean?

and you brought this

Array of things with you to show me how easy it is to ferment things in your own home, I guess Yeah, I think people are frightened by

fermentation and

It's important to know what it is and what it isn't so

Fermentation is a word lots of different meanings

But it's when food is modified by microbes to produce something that is taste different taste better and is also healthy for you and

In a way, it's a probatic food because what we're doing is we're taking basic whole foods and we are

adding something like salt or sugar and

that then allows natural

microbes on those plants to flourish and

Change the composition of that for that food

So they make it acidic they get rid of all the bad bugs and making it something super healthy and all the microbes are growing

Just like they would be in your gut if you fed them

So it's like a mini version of your gut is what we're seeing here

And it's incredibly easy to do so that's why I brought this stuff along so that we I can demonstrate not only

how to get extra plants into your

30 a week, but also if those plants are fermented they have

Many more times more nutrients in them and the fact that those bugs have been working on it means they've been in a way

predigested before they get into your gut and

All these studies are showing these are super good for all

aspects of your health and

if you can have

Several portions of the day you really notice the difference

So for people that are just listening on audio and can't see what have we got in front of you here? so we've got a jar like a

like a one

liter jar of which is full of

Chopped veg from the bottom of my fridge all of us would have

fridges like this where you've got odds and ends left behind and

The idea is that you should rather than throwing it away. You can actually just chop it up and Ferment it and stick it in a jar and there is I can see

Cabbage I can see a radish in there. It's just like the waste to veg that most people would probably chuck in a bin

Exactly. So a few years ago, I'd have just thrown this in the bin

I wouldn't have thought about doing it. So you throw it out people have heard about sauerkraut, which is basically just

fermented cabbage and

You might have heard of kimchi which is the Korean version which has just got a few more things in it like

chilies and ginger and spices and

This is a sort of mixture of all of them

but it's just to illustrate the fact that you can ferment virtually all plants and

Avoid the waste and that's what our ancestors did before fridges because

all you need to do is

put them in a jar and

Squash them down and add 2% salt and a little bit of water to cover it

And that's all you do and I can just demonstrate that now for you if you like so we've got all these in here and

The idea is you

Add some add the salt so we're adding 2% salt. This is really important to measure it

So this that's the only thing really tricky is to make sure that you've got

2% salt and that gets poured in there and you would mix it around

I would normally put it in a big bowl and do it but

You get the idea here. You put the salt in you mix it around and you scrunch it down really hard. So, you know like

Really getting rid of any space for air. Why the microbes don't like air

The ones that ferment they call anaerobic. They don't like oxygen and so they grow really well when you cut out the oxygen and

they can just

Live off start eating the sugars in in the in these plants and the salt gives them a competitive advantage against nasty microbes

Okay, so that means that they can outcompete the other guys because it's suddenly a different environment and that's what we're doing

so you squash it down and

I'm going to add a little bit of water

Sometimes you don't need to add hardly any water and if you add more than a bit just add a little bit of salt to that water

Just enough to cover it because the microbes are naturally in all these plants people don't realize that they think all it must be sterile

I've got it from a nice supermarket and a plastic wrapper

it's full of microbes and that's normal and

We know that even in garlic for example, even when you cut it there are perhaps

10 20 different types of microbe living in that garlic and

Once they they sense the water and the salt they will suddenly say ah, it's good to come out

I can outcompete I can grow I can start munching the sugar and then

To pack it down you either use you can use some stones some clean stones

What I like to do is use some leftover waste

So I get some outside cabbage leaves or something else from a plant and just put it down in there Squash it and so you can see that it's now below the waterline and

I close the lid and

That's basically it and I would leave that for minimum of three days

Somewhere room temperature out of the Sun and you'll start to see bubbles forming and that's co2

The microbes are producing that the fermenting it. That's it

You've got suddenly your own probiotic fermented food made from your scraps rather than throwing it out

And that's that's a great example of what you can do

To

Really improve your health for something that costs nothing

Apart from the price of salt and that's when you made earlier. Yeah, this is a nicer looking one

That's what I did earlier and I'm just gonna see if you can see a few bubbles there

It's it's just starting to to get going

and

You can open it up

Every day or so to give it a smell and see what's happening making sure that it's packed down So that it's all below the waterline once you've done this it once it's fermented after a week You can put it in the fridge for months. Oh really so you could put that in the fridge for months

Once yeah, once it's fermented the it's become acidic and

The pH has dropped below 4.5

No other microbes can live there only the ones you want you've selected personally

These are your probiotic microbes that we know are good for your health and the difference between this and your probiotic capsule is

That you'll probably get 30 different microbes here

Whereas you take your capsule you might get two or three

so this is why

fermented foods I think are a real answer to many of our problems

You know the fact that we've got a rather Western deprived microbiome these could really help People like you want to boost your gut microbiome and just

Introducing this fermented foods into your regular diet and this is what the Koreans do for example, you know the Japanese do

By using fermented soybeans in nearly all their foods

And so many the healthiest populations have large amounts of fermented food in their diets When you look at the Japanese and the Koreans do they have better gut microbiomes than the people in the UK and the US?

Yes, they do and they but importantly they live much longer and have in much less of our

Chronic diseases or they sort of delay those problems by at least 10 years

so I think we need to learn from the populations that are doing it right and

This is a really easy

Thing to do and I think it's it's a great exercise in in teaching because if you think what's going on It's this is mirroring what's going on inside your gut

if you had that rich diversity of of plants in there you can get many microbes to

to proliferate and

Once you start seeing the bubbles forming and that that the amazing change in taste and texture that you're getting

you got to remember this is the difference between a grape and

an amazing

vintage red wine

It's just the effect of those microbes

In the fact, you know on on that grape skin just changing it over time increasing that complexity and Producing chemicals it all it's basically a sort of chemistry lesson

When I'm in the supermarket, there are lots of things that now have labels on them saying that they're great for gut health or their low sugar

Or their low fat I brought

Everything that I could find in the supermarket

That was making a claim that it was good for me and I want you to take a look look at it

These are some of the most popular things that people pick up in the supermarket that make these

claims that they're low sugar low fat low

Hyprotein great for gut health. So the first one I've got here is

Actamol which hat says it's got vitamin D B6. It's great for immune support

zero added sugar zero percent fat

Rich in vitamin D that Tim Specter is definitely healthy

Or not

So

Yeah, these these claims

Some of these claims they're allowed to put on the packet there's very restrict what they can actually say in terms of health

It can do our date back 30 years and no longer really valid

But they have to do it because they're not allowed to if mentioned the word probiotic on a on a packet interestingly

So they're trying to attract you in with things that would resonate with the consumer

So they do these massive surveys to saying what's going to resonate with you Steve when you go and you say all

What's going to what's going to make me buy this rather than one of the other ones? And so vitamin D

We've been flogging vitamin D for forever. You know 10 minutes in the sun will get you all the vitamin D you need

And it's in most foods anyway

You don't really need it in addition in these things

North percent added sugar and opposite an added fat mean that it's highly processed. So

The combination of health what we call health halos

Saying it's super healthy

With

Rich in this vitamin let no sugar no fat

Is very old-fashioned science

No one believes that that zero fat is any good for you anymore and there's some actual data showing that low fat foods

actually

Make you overeat

Really? Yes. What does the date say?

So when they've compared compared I'd sort of identical

Meals to people in lab conditions those eating the low fat foods the

High-carb but high-processed foods like this will actually overeat

Substantially over the next

Day or so. So it's actually making you overeat

Quite significantly. So and there's no advantage to your body in terms of heart health by having this because to get zero fat and make

It taste good

It's gonna have lots of extra sugars and starches in there. Otherwise, you do you just couldn't eat it fat is really important

Naturally to make you enjoy food and so it takes a lot of careful chemistry to mimic that fat

So I would always avoid anything that said, you know, zero sugar zero fat

Rich in vitamins despite the fact that this probably has something good

Probiotics in it. So you get in a good probiotics

It's any one lack to bacillus

But that's counteracted by all this negative stuff all these chemicals which we know are bad for your gut microbiome

So that's not gonna be good for you. It's not gonna be good for me either

So I would have avoid that one always go for any yoga that really has minimum contents just milk and

Microbes, that's all you need

Can you bring me the bin? This is going in the bin

I'm gonna just drop in the bin. I did scan on the Zoe app as well and my relationship to it was about 35

Which is not which is not a health food, which is not a health food. What about this? This is definitely healthy. Dr. Tim specter

Activia

deliciously good for your gut health

Okay, so I know this one's gonna be good

What else does it say we believe that a happy gut is a happy you

When you love your gut, it loves you back. It sounds like you wrote it

What else what other claims does it make we ferment our unique blend of five active strain strains for up to eight hours

So every little pot is packed with billions of live

cultures

Loving the planet to love our gut

Activia great for the gut

Healthy well so far, you know

Everything looks everything looks good, doesn't it?

But let's have a look and say what extra things they've added to it

Which is always hard to find in packets in you you often need a microscope to see them so for it to be good, it just needs microbes and

milk and

That makes yogurt you just change the temperature. That's what you get. So here we've got Lots of we've got lots of ingredients. We've got

Flavorings we've got concentrates. We've got a bit of carrot for some reason. We've got lemon juice. We've got stabilizers

We've got tapioca starch. We've got sugars and

It claims to have strawberries without when they last were picked from the earth. I'm not quite sure so

It's not as bad as the other one, but basically we're looking at a highly processed

Product that has many chemicals you don't really want in your gut because they will counteract the good effect of the gut microbes

slightly better than the other one, but I

Would still not eat it myself. Okay, and

The fact that it's processed does the fact that it's processed alone make it a bad food or is it because the process of processing

Causes a loss in the good stuff and

Addition of a lot of bad stuff when we say pro because this word processed foods has become just like a blanket term

So my brain I get if it's processed it has to be bad

But is that accurate? Well, we need to separate virtually all the food that we eat and I eat as well is processed

Yeah, but

We need to separate that from ultra processed. So plain yogurt nothing added nothing, you know Changed is processed because you're mixing a basic ingredient milk

With microbes you're actually creating something that's processing

But it's when you take it to the next stage and you would make that same product from say milk powder

and then you would add various starches and

Stabilizers emulsifiers

Concentrates artificial sweeteners flavorings that same yogurt becomes ultra processed

And it's that extra step that is the main problem

Nothing wrong with processed food

You know

Cheese is processed. There's nothing wrong with that most of the foods we we eat our some avad salt added or oil added or something

like that, but it's when it's

chemicals that you don't find in your kitchen being added to foods that have been

Stripped of all their goodness. So they wouldn't just use cow's milk. It would be

you know dried

extract of casein or

You wouldn't take wheat it would be the

Stripped out in a part of that wheat and then that's

Temperature treated to melt it and change its composition and to put these things back together

You need all these glues like these emulsifiers. You need stabilizers. You need

Flavoring sweeteners colorants all these extra things to make it look like food again

So I think we shouldn't be calling ultra processed food food. That's a misnomer

We should call them, you know edible food like substances

that are

industrially made and

If we start to realize the difference between these we can start to make smart food choices

We now know that many of these ingredients has been lots of

Even research since we last talked about

First things like a spartan has come out as which is artificial sweetener has been linked to many health problems

including increased risk of cancers and

heart disease

We've got emulsifiers have come out

recently in a number of studies to show that they affect mental health and

They also affect heart disease even when you adjust for the whole diet and you take

Just that component of the food. So we know that ultra processed foods are

Probably the worst things we're doing for our diets and then in the UK

The average person is saying about 60% of all their food is ultra processed without knowing about it We're eating four times more than

Healthy European countries who are often poorer than us. So it's not just a question of money It's just become this battle of us poor consumers

against these massive

companies with

Billions of pounds to spend on marketing that have told us this stuff is healthy because of these fake health halos

vitamins

No sugar know this no fat confusing the consumer and all the time giving us foods that not only make give us

disease, but

Importantly make us overeat

So we pick that stuff doesn't matter. It says just whether even if it's just low fat or it's got lots of other chemicals

Both make you overeat by a quarter

So you'll be hungrier

After eating that

Then you would be if you had a completely plain yogurt with none of those extra chemicals in it Okay

So I've got three different

Drink-like foods here. I've got my oasis citrus punch

on this one it says

natural flavorings and

real

Fruit so that must be

Healthy real fruit if it says real fruit on it. You should be very suspicious

Okay, that's the first thing to look at it

and natural flavors that really means nothing and this is

Natural is a great word means nothing

Medically scientifically, but it's been a buzzword for me getting people to buy stuff. So basically this is a mixed blend of

citrus fruits, which means

the mixtures of all kinds of different

fruit extracts

That's combined with sugar and artificial sweeteners. They're again highly processed fruits

They're not fresh fruits and it's got a mixture of those. It's got citric acid. It's got sugar orange flavorings it's got

Stabilizers polyphosphates glycerol esters. It's got

Looks like wood

resins

acidity regulators

preservatives it's got some potassium sorbate

potassium benzoate it's got the sweeteners aspartame and

Ace K

Scott seems what you're just talking about, right? Yes. That's the one that WHO have just put on their

warning list

So yes, it's it's packed with things that you wouldn't expect if you just squeezed a bit of juice in and

But it was healthy. So this is a good example of a totally

fake ultra processed food that makes it look like it's real fruit and it's gonna be healthy for you and It is just a mix of chemicals. That's just gonna mess up your gut microbes and make you feel hungrier

Okay, but this one here this Philadelphia says light

So it says a hundred percent of the taste but forty percent less fat. So Philadelphia light Surely that's

Good

Well, it's got cheese in it

It's often have this we did do some tests on this a while ago

It does have microbes in it if it's low in fat. They've generally added something else to increase the mouthfeel and

Indeed we see here. It's got

Stabilizers it's got emulsifiers

All these things that we know have effects on your gut microbes make you hungrier and can affect your heart as well

So yeah, I would avoid that one. Well, do we have to I've got a few last things for you there What do we have to look out for on the packaging of these products?

Because interestingly the one you have in your hand the bar there the snack bar on the back of it They do admit that it's a little bit processed. They actually there's a sentence on the back of it. I'll read read out

I was reading it as you said it says

well

Well clearly it would be wrong for us to claim that everything in this bar is a hundred percent natural and simply grows on trees

Obviously some ingredients need to be cleaned dried and roasted to and therefore to some extent processed

It's just that we believe the less we mess with it the better it tastes

That's why we never add any artificial flavors or colors or any preservatives

Yeah, well natural bar and the ingredients, you know, that's a good thing to say

It's quite hard to produce some of these snack bars without

Having things to stick it together or gums glucose syrup soy or protein crispies

Isolate tapioca starch salt dates almonds salt salted caramel

Muscovideo sugar buttermilk powder natural flavorings cream powder milk rice flour

Carboflour and salt

Yeah, it doesn't when you read it out like that

It doesn't sound quite as natural as the label suggests does it because you guys got all these ingredients that are you know again

Half me wouldn't find in your in your kitchen

No, and it's partly to but you know protein packed

You know if it was if you just need the nuts and the seeds you wouldn't have to add in all this Other stuff from soy and and other beans and things which are ultra processed

They're just taking that bit of it combining it together. So some of these are better than others but

again, this is ultra processed and

You know these all these snacks interestingly are

Really often the downfall and in place like the US and the UK where we're just eating so many So much our our energy is coming from these snacks, which wasn't the case 20 years ago. So on that point of snacking

It's snacking good or bad and what impact does that have on the

overall

nutritional

Profile of an individual because a lot of people snack right nearly everybody snacks

I think that's right over 90% of people snack

So it's become normal to snack in this in this country in the US

It is the norm. It's not the norm in other countries. So you can see much less snacking habits in southern Europe

Then you do here and much less in many Asian countries as well as Zoe study found that 95% of people were snackers

Yes, and 25% of people are undoing the benefits of healthy meals by unhealthy snacking

Yeah, so 95% of people we found that that Zoe study us are

Snackers and most of them are unhealthy. So just by reaching for a snack unless you're really careful, you're gonna be having

not only extra

calories, but

unhealthy calories that's gonna

Undo many of the good things you're eating. So we found in the Zoe survey that

People would be really focusing on their main meal saying this is a really healthy meal

I mean plenty of plants and vegetable, but oh, well, I've got to have my snack

And so they'd be undoing all that good by having something that would then a

Couple of hours later really upset

their metabolism and make them hungrier and so

Mess up they are the idea and make them hungrier. So we in the UK and the US. It's around a quarter of our

calories come from snacks if we were able to even to reduce that a bit or just change that snack to a healthy one or

Ideally move that snacking time

To the meal itself most of these would be much less harmful if you had them at the end of your meal When your body is

You know starting to do all this work breaking down the food is gearing up for this high activity Virtually all the snacks that people have late in the evening are bad for you and

That's because you're getting a sugar spike just before going to bed

Your body's not ready for it. Your gut microbes not ready for it

It doesn't give them a rest and so you actually end up hungry the next day

So we're starting to realize that it's not just the food and we've seen that most of these snacks are very unhealthy

Gonna make you hungrier

But the timing of it also messes up your circadian rhythms

So you're not recovering and the next day you're gonna feel hungrier than you were if you didn't snack

So it's like counter-intuitive you think oh if I have something for again a bed

I'm not gonna be as hungry tomorrow and this is what many people get into this this common mistake

So we need to start changing people's attitude

In in in this snack epidemic about snacks and say you know you don't need them and

if you do have healthy ones and

you know nuts and seeds and fruit are

Perfectly healthy ones and we showed in our in our study which we published recently that people who do have those healthy snacks are

Really hardly any extra

risk of

health problems

Compared to those that people don't snack as long as it's not late at night

So if you eat within that sort of normal eating window and you you know some people are natural snackers

I don't know if I'm not but I know many of my colleagues at Zoe

Can't go two or three hours without eating. They really find it hard and

But just by thinking more about that snack and saying well, I'm gonna I I know I've got this tendency I'm gonna eat something. It's healthy like nuts or something. Yeah, just a handful of mixed nuts an apple a pear

Something that's not super sugary or super fat, but importantly not ultra processed not something that's got this

Health halo that says eat me. I've got high in protein. I'm gonna you know

Eat me and you'll get bigger muscles

No, it may and you'll get fatter those health halos then what are just so we've summarized them Low fat is a health halo. You're saying no sugar

Real fruit. I'm trying to remember all the ones and extra vitamins

Vitamin labelling on on products

Natural flavorings, I think it said yes one of the products those are those the main ones. Have I missed any there? I?

Think we've covered. Yeah, so claims about low fat low sugar

Nothing artificial high protein natural, right high protein

Some would be gut-friendly

Generally their warning signs that this food is to be avoided find something that doesn't need their health claim you never see a whole

Real food with a health claim. They don't need it. You got an apple doesn't need a claim

You know contains vitamins contains fiber real foods. Don't need health labels. I've had a confused relationship with bread. I

Look at bread all bread. I think that's bad. This is cheating on my gut microbiome. Is that the truth is bread bad

Most bread is bad

most

supermarket bread is ultra processed sugar and

Contains many other chemicals. You don't really want in you makes you hungrier and

The general perception of the public is it's a healthy food. I

Found this myself when I started doing my glucose levels  $\,$ 

Even brown breads were all over the place

There are some breads that I can eat in small amounts that are still healthy things like rye breads and

If it's sourdough that also improves it

But I think in general we're eating far too much bread for most people there might be some people who can support it

And that's why it's good to test your

Glucose responses to it, but most bread has too much sugar not enough fiber too many chemicals in it and

We should be looking to other things for our nutrition. Have it as a rare treat

Have it just when you go to a restaurant or whatever, but for most people, you know

It's it's a real red flag for me

The other red flag that shocked me was my relationship with white rice because I'd grown up eating white rice

And I thought white rice was a great thing to have after I'd been to the gym with some chicken So I used to I whenever I saw white rice

I thought it was great and then I looked on Zoe and I had a 15 out of 100

Relationship with white rice and I think my girlfriend had a five out of 100 relationship with white rice

So I no longer have white rice. I've swapped it out for I think quinoa is usually what we have in the

house now

Nearly any grain is better than right white rice. It's got more fiber. It's got more protein in it It's got more nutrients in it and rice is the most overrated food

I think even more so than bread because yeah, people think it's healthier than you know, having potatoes or pasta

They associate it with healthy things because often sometimes the rest of the meal is actually quite good

Mm-hmm, and you know vegetable curries or whatever it is often quite healthy

but the rice itself is really just sugar and

There's there's no have it as a rare treat

But so many other grains you can have instead quinoa's barley oats

You know or even putting in lentils or legumes, you know beans instead of that rice just makes it so much healthier

Quick one I discovered a product which has changed my life called eight sleep this product eight sleep

Which are a sponsor of this podcast has been a revelation in my life because the eight sleep pod cover

Which is basically a fitted sheet that goes over your mattress

controls the temperature of your bed throughout the night and it follows nature's natural rhythm it starts cool gets

Cold a while you go into different phases of sleep and then heats up slightly as you wake up in the morning

Which is effectively guiding you to have a deeper more restorative sleep go to eight sleep comm which is

eigh t sleep com

Stephen and if you do that you'll save a hundred and fifty dollars on the pod cover that I have on my bed the one

I'm talking about grab your pod cover

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It's just nutritionally complete not only have I got a good relationship with it in terms of health But it saves my life in terms of those busy days where there's a higher probability of me reaching for something I might regret

If you haven't tried Huell's RTD you could probably see it in a couple of supermarkets

But you can order it online and the link is in the description below

Let me know which flavor is your favorite and also tell me if it ends up adding value to your life in the form of

Making you nutritionally complete on those difficult days

When you talk about your habits being so important

I when you're eating and what you're eating and

Making sure that you carve out time to have your meals because I was telling you earlier

I think before we started recording that I'm in a bit of a pattern at the moment of eating my first meal of the day at like

4 p.m. Or 5 p.m. Because if I'm recording podcast or I'm doing something in the media on TV I don't like to eat before then

What is an example of great food habits? I want to know what what your food habits are on a perfect day

So, you know, this was your 10 out of 10 day. When would you eat?

How many meals would you eat and what times would would and wouldn't you eat?

Okay, so

Like you I have very busy days where sometimes it goes out the window and I think we've got to realize that

You've got to try on this sort of 80 20 ideal, you know, you're trying to stick to something

80% of the time knowing that 20% it's out of your control. Don't worry about it

And if you do that you can do that sustainably for decades, right?

It's the people who obsessed and say I mustn't break it and if you've broken it one day, okay And end of my brilliant experiment. That's daft. So

if I'm at home for example working at home, I'm in control of things. I

Will not eat anything before 11 o'clock. I will have a black coffee because I know

That wakes me up and I like it and it's also good for me

But I wouldn't have anything else until 11 o'clock. I'll go down and I fixed myself my bowl of full fat

yogurt and

I'd put my

Diversity jar sprinkled in there and I'd see what else is in the fridge

So I might have some berries if they're around at the moment plenty of seasonal berries might get some from the freezer if

We're in the mid, you know, it we're in March or something. There's no no fresh berries

Or I might just chop up an apple and put it in there. I'm getting my protein. I'm getting

Fat, you know, I'm not feeling hungry

And having a dip in energy in the middle of the day that I would probably have if I hadn't eat anything

You said coffee. I have my coffee because I know it's good for me

Last time we spoke you were kind of on the fence about coffee

You would two trains of thought about whether it's good for us or not. You're now saying you think it's good for us

Yeah, well, I must have given the wrong impression to you, but coffee is definitely a health food Interesting. Okay. There are some people who don't tolerate it very well

They don't tolerate the caffeine a few percent of people

But even if you have decaf coffee, it's decent quality because there's different ways of taking the caffeine out

all the studies are now showing consistently that

you will have less heart disease and you'll live longer if you drink coffee and

Having sort of between one and four cups of coffee a day that seems to be the sweet spot a bit more than that

You break off some problem, you know that coffee is actually a fermented plant

So people don't think of it that way think oh it just comes in a jar, you know, I don't need to worry about it

But actually, you know, it comes off a a tree you get this pod this bean

You take it off you break it up it then gets fermented on the floor of

Usually, you know wherever it is and Africa or Asia where it is and it's humid the microbes are working on it breaking it down

then you go and dry it and

Roast it and that ends up being the coffee we have so the microbes are playing a role in that It's also a source of fiber

SO

three cups of coffee

Gives you around five grams of fiber, which is about a quarter of your

the average UK or US

amount so

You know, it's not the main source of fiber, but it all helps and in the US. It's often the main source of fiber

that they get so

Polyphenols the fiber

Also for many people it gets them awake and alert has that effect of stopping tiredness

So if you if you're careful with it, you don't overdose on it and you know, it doesn't give you heart Fluctuations, it's going to be actually beneficial for you long-term. So this is a great example of a food that we've totally changed our minds on over the years

I initially my first research paper I ever wrote

was that

coffee causes

cancer

Okay, so when I was a I was actually a medical student. I was very proud of my paper and this is great

And it was based on very poor studies

Done in the 1980s and it was completely rubbish

so I'm very happy that to go and correct that mistake and

Tell people that, you know, you should much better to drink coffee than say orange juice

An orange juice is tends to be in the health section and coffee definitely and there's a recreational Section and they really should be changed over most orange juice

We have is ultra processed high sugar very bad for most people

Coffee is good for the vast majority of people

What else have you been wrong about?

What else have you changed your mind about over the last couple of years because of the research

that you now have

You know the data, you know have access to in the research that you've done

Well, I was keen to avoid fats for a long time

I cut back on cheese because I thought

That's high in saturated fats that can't be good for you. I

Would have bought low fat products before

And so that most doctors were indoctrinated with that many doctors are still in that mindset that fat is bad and you know

carbs and starch are good

Drinking lots of water was good for you and

I now having researched it for the book. No, there's no hard data that you should be drinking eight Glasses of water for example a day, which is what most of the

recommended government sites tell you and obviously the drinks industry is very keen to support that because

You know the big companies like the Cokes the Pepsi's are moved into the water business and they're trying to sell everyone

Plastic bottled water, which is terrible for the planet the idea that

we're all

deprived of hydration and

Having all kinds of problems with it is is really made up. There's no hard evidence at all and if you look at

Doctors who work on marathons. They see that far more people die or have health problems from over hydrating in

The marathon race then then

Dehydrating so the human body is really good at some things, you know, you think about our ancestors

They kind of knew when you were thirsty, right? It's like hang on

This is a quite a you know and the idea that oh we've got no idea if we're thirsty or not

We need to be eating, you know have a stopwatch to tell us to drink every hour on the hour

It's obviously nonsense when you think about it. That's so true

I am

for my birthday just gone someone brought me this massive

like

What's the way to describe it barrel?

Water bottle and it has like eight litres marked on the side of it and they said to me when they gave it to me

You need to drink that every day and so the idea was that I put it on my desk as a reminder

That I need to drink that whole barrel before I finish work

No, I mean you just think about it. Well, you know

We've been involving for millions of years and

You know, you can't live long without water

So clearly we are a pretty good mechanism

We've inherited to tell us when we need to drink water and when we don't and I I just think that's

again

marketing

Concept all the soft drink the you know all this

Rehydration these electrolytes all this stuff. It's it's largely nonsense and it's just you know again like the protein marketing

Idea is that and we're very susceptible to it because we like a quick fix or and there'll be a few people

That say I feel better when I drink lots of water

Sure, you know, but the idea that

We're so out of control that you know

Someone needs to bring us water every hour

Is madness and that there is you know, there isn't this variation

We got up to your lunch. So we did your breakfast sounded nice your lunch

What time do you typically eat lunch and what you typically have on a 10 out of 10 day where everything's going to plan?

I mean it all varies now, you know, I think I don't want to give the idea

I'm always having the same lunch because I do try and vary it but

If I'm on my own working, I'm not with friends or whatever

It would be a fairly quick affair and it would probably be a salad

and I would

Get a lettuce or a

Grated cabbage I would throw whatever happened the fridge in there and

I would add some protein to it. So I would add some beans. I

Always keep cans of beans around they cost nothing. They're a huge source of fiber and protein Tip those in there might be lentils. They might be chickpeas might be standard mixed beans and I put them in if I had some cheese I might chop that up might put a bit of mozzarella in there olive oil

balsamic vinegar

That'd be it and if I'd had some sauerkraut or something I might have that on the side a Bit of ferment and I've increasingly recently since my I've been doing more research in this I might make my salad dressing actually with some fermented milk some kefir and You just mix up the olive vinegar and you just at the last minute add in your

Ferment so you're actually getting probiotics added to that

that if I'm on my own and I'm a hurry that's that's probably what

Yeah, you know reason but but it would vary depending on what I was taking what fruits what Vegetables and yeah, I would have fruit afterwards. What kind of fruit do you do you like? I am I noticed on my zoe app that

Bananas rank incredibly low for me. I think my ranking on a banana out of 150 now I've been eating bananas like a monkey. I've always thought bananas were just fantastic So I thought unlimited bananas were a great idea until I saw the zoe app and it said my score is 50 out of 100

Now I've used up on the bananas and I'm having much more berries because I do really well for red berries in particular

in fact the order that I the zoe app had

Fruits in is raspberries were number one

cherries were number two strawberries were third then pears then peaches then apples and kiwis then blueberries then grapes and then

Bananas were like tenth

50 out of 100

Well, I scored even worse than you you'd be pleased to know really I used to eat lots of bananas and it was a thing

You just put in your backpack comes its own packaging, you know have it when you want. I thought this is super healthy

So I've seen you know

Roger Federer eat lots of bananas, you know, he seemed pretty fit

And that's why we associated with the marketing thing. Oh lots of potassium, you know must be good for us

really lots of sugar and

They're not they're not great for us. My score was about 30 or something. So it

So I I still have them occasionally because I you know enjoy them occasion

I don't have them every day like I used to so I now swap them out for pears

We have some great pears in this country and they're always good apples and

Again, I'll have my my berries if I've if I've got them so

And and kiwi fruits. I had to also give up grapes

I used to eat lots of grapes and I used to love them

But get huge sugar spike with grapes, which I know then you know would make me hungrier for the rest of the day

So and I have them as a treat, you know, you might have some grapes once a month. That's still fine So I think we should never say I'll never have those again. It's just like what's your staple

What do you have most of the time? Should you be swapping that for something just as tasty or nice or a mixture of things?

but get out of that rut just because someone told you that you know

Banana's good has potassium in it and make you play tennis better, you know, it was

It's that kind of mindset that we really need to change and I guess it depends what else is on the plate

I remember for a drinker who's the head of nutrition at Zoe

her telling me that

The plate itself has its overall score

So if I had, you know, maybe something that wasn't so good in isolation

But with a couple of other things that are really high ranking in terms of health and gut microbiome Then the overall score comes up. It's really the average of the whole plate. Yeah, it's exactly I don't The idea is we don't want to demonize one little thing

So you might be obsessed with mayonnaise, for example, you know, I'd say to you

Well, you can have a small amount of mayonnaise if it's going to make you eat a salad

And if that salad is high-fiber nutritious, it's got plenty of good things in it herbs and etc. etc

Or, you know, a tiny bit of ketchup or whatever, you know, I'd still be saying yeah

You can try something else instead of those but don't get hung up about it. And I think It's absolutely true that

You know nutrition has gone into this idea of this this is wrong. This gives you cancer. This is this is bad and

Meat is a great example of that

Debate, you know, people ask me are you, you know, are you for me? Are you against meat?

And I've sort of changed I flipped on this as the evidence has changed

I'm definitely against process meats ultra process meats, which are low quality stuff

Put together in ready meals, etc

You know, you'd be much better off just having

Mushrooms or beans instead of that mixed with it a vegetarian version of it, but real high quality meat in small amounts

Nothing really wrong with it as long as you can have enough space on the rest of the plate to make up for it

What about the carnivore diet?

Well, I keep getting probably like you, you know people can we say, you know, I heard you talking about

You know

Not eating plants is bad, but I've been living for two years on the carnivore diet

I feel great, you know, and I say fine. There might be

one in ten thousand people

That can exist with zero fiber and zero plants and you know, you know

In in the near the North Pole, etc. There are people who exist on high fat and high protein diets.

They've evolved for it

but vast majority of people

will suffer greatly by having

denuded gut microbiome and

Just eating meat is not what our ancestors did anyway

I've lived with the Hadza tribe for a week and

they ate a lot of vegetables and and fruits and berries and nuts and seeds and they still meet is a treat and

Three months the other have no meat because it's hard to catch, but they've got all this other stuff So the idea that it's natural. That's what we did is is really wrong and

Some people might feel better briefly, you know, there's a difference between how people respond to fats particularly and

carbs

So you might lose a bit of weight a lot of that's actually

They've done some studies showing people on high keto high fat protein diets. They'd lose weight quicker

But a lot of it is water. Oh, okay

So they're sort of drying out and in a way sometimes bodybuilders do that to make them look more toned

but actually

Long-term they don't lose that and it comes back and the main problem is their gut microbes are really crying out for food

So you're starving your gut microbes if you're just on a meat only diet

So there's no evidence that it is healthy and lots of evidence that lack of fiber is really bad for you

So remember that statistic we went back to just a five gram change in fiber

So if these people, you know, so the average

Is 20 grams a day and the carnivore diet person is on

five

or less

then

we're talking, you know, 50% increases in heart disease and reduced longevity so

You know, people do what they want, but the the data

Absolutely doesn't support it. Another thing that I have every day is chewing gum

And I was in the car because it's in the center console of the car that I that I'm driven around in the diurethia car

We call it and there's like seven different types of chewing gum now when I eat this chewing gum It's there's this explosion of sweetness in my in the first couple of bites and I

I was thinking the other day as I was driving how I was thinking

I think I'm becoming a little bit compulsive like I didn't need the chewing gum for any other reason

Then I think there's this is so it's doing something in my brain. I grab it. I put one in

I throw it in the bed. I grab another put it

I throw it in the bin and I think I'm just doing it for that sugar burst

my question is broadly about chewing gum, but

Are these artificial sweeteners that exist in the chewing gums that I'm probably eating worse than just normal sugar

They're better for your teeth, okay, so you will get less tooth decay. Yeah by having the artificial sweeteners

but

Most of them will be causing problems to your gut microbes. Okay, and not at your mouth microbes as well

SO

Anything you mess with in your mouth and your saliva things like mouthwashers as well. Yes artificial ones

They're all shown to reduce your natural gut microbes and actually cause more problems so that you're more prone to infections

and actually more prone to get overgrowth of bad microbes giving you bad breath so

You know you have this initial hit

which you know often the mouthwashers are similar in a way to

That sort of instant gratification of the chewing gum

Because it feels fresh and tangy in your in your mouth

But you're often killing off the good guys that are protecting your your your mouth

And the worry I have is about this sweetness is it's it's sensitizing you to want more sweet foods. So it probably make you hungrier for more carb foods later in the day

So I don't think there's any particularly bad about chewing gum per se

Other than if people chew a lot of it it's sugary, you know, it will give you more

Dental decay

But the artificial sweeteners are probably worse

Because they're having a negative effect on the gut micro on the

All the microbes from your mouth down to your gut mouthwash. I am a prolific mouthwash user. Oh dear. I know and

They've done actual studies on this to show that

Um, you know, yes customer consumers like it, you know

So like you probably like that feel of being fresh and doing something and having a tang in the mouth a bit like a

You know a tangy chewing gum as well

Um a mint or you know, there's there's something nice in the brain that that says this is good but

If you do it too much you start to default, you know destroy your natural defense mechanism And microbes in your tongue and your saliva are there to fight off other bugs and you're more likely to get

um overgrowth for the wrong ones

And you know, you may actually end up worse smelling breath long term

Uh than if you weren't using these chemicals

The topics i'm about to throw at you are very complicated and you're very good at simplifying things So everything i'm about to throw at you typically

Has a whole industry of people behind it that have over complicated it and are selling courses about it and different hacks and

tips and tricks

If you could I would ask you just to give me a simple solution

to the things that i'm going to throw at you the first one

is

weight loss

There's not a simple solution

you have to

Do something that's sustainable for long periods of time. So forget the idea

That it's really important to lose weight over a few weeks

you want something that

can maintain your weight at a good level

for decades and

if you are

have a problem with

Really excess weight you're uh extremely obese morbidly obese

um

You need something radical

Darts are not going to do it. You need one of these new drugs  $% \left\{ 1\right\} =\left\{ 1$ 

the

GLP ones these injections the zempics the

Wigovies or you need bariatric surgery to get you down to that level something dramatic for most people

What do you think of those new drugs the zempics and I think they're amazing

Really for people that really need it. What about not for you? Not for you. Well, I've got lots of friends that are in

seemingly

Great shape that are taking these new weight loss drugs zempics and all that stuff. Well, they're mad why

there are

lots of side effects that um

Aren't worth the benefits not the benefits if you have any minor weight problems

the the benefits outweigh the risks if you are

So obese that your chance that you know your 50 50 chance of

Having a heart disease heart attack in the next or a stroke in the next five years

So people with morbid obesity have a worse prognosis than people with cancer

So it's you know, like I've got cancer. What do I do? I'll take a drug

I'll accept that it's got some side effects

But you know, I want to live and they do work for the mass majority of people for people who have only minor

levels

of

obesity just you know some love handles or whatever

To cut out your all your appetite signals in your brain. We don't know what that does long term And we don't we do know that it has can affect your pancreas. It can cause some rare cancers It can do other stuff to your digestive system

that was still

you know

a long way away from knowing so

It's it's a drug for extreme obese problems that we've created through our ultra processed foods And people with terrible diabetes, etc. It is not something for

uh

the general population so for for those people

it's

Firstly improving the quality of your your diet

Is number one. So get down from an average of 60% ultra processed food

To something less than 20%

Find a consistent way

to

That's that's the first thing to do and

Then the next thing is to change your mindset about

Things don't get obsessed with with calories start thinking about eating your 30 plants a week because that will naturally give you all the

fiber

and

Change your appetite signals as well. The fitness community were quite disgruntled last time Probably disgruntled again

When you said what you said about calories because a lot of people do rely on the calories in calories out

system for weight loss

Yeah, well a beastie experts don't so

It may be fine in gyms to talk about that. That's old science. We now know that

that this calorie model

From a practical point of view is completely broken

because

we've been

Not talking about the quality of food the structure of food

All these different effects these inter individual effects that we're talking about meaning that counting calories

is

for vast majority of people impossible or meaningless

S0

It's

And it's the the marketing and the companies who are selling us these low calorie products

This idea that it's really simple. All you got to do is x y and z you'll lose weight

That's what we're fighting here and they may have influenced, you know, the gyms with their

Special drinks and programs and people wanting the crash course of come in here. You'll lose all this You'll you'll gain muscle. You lose weight. You know, it's easy

The evidence is very clear that if you restrict calories, you will lose weight

but 80 percent of people regain it pretty quickly and

We'll actually go over the other end if they haven't changed their diet in terms of quality and taking care of

What they're eating and there's good evidence that people that follow

Uh a program where they are

Not focusing on calories, but they are focusing on food quality

They're looking at their sugar peaks. They're looking at their fat levels. They're looking at their gut microbes

They are looking at the time of day. They're eating. They're looking at the how to eat just thoughtfully

and not talking about fat levels and you know

Avoiding all these foods that we've been talking about

They will consistently lose small amounts of weight

Not large amounts, but small consistent amounts that don't make them more hungry and the key is do things that don't make you hungrier

The reason calorie restriction doesn't work is our evolution tells us

To ramp up the appetite the hunger signal

obvious

You know, it's the same way if you do exercise it makes you hungrier

We have this inbuilt mechanism. That's why the only drugs that

Methods of work are these drugs like

A zempik wegovi that act on the appetite

They act on the brain

They just it's from the gut sends a signal to the brain switches off the appetite signal. Otherwise

You you just reduce calories or you increase exercise

That appetite signal is just going right up there and you can carry on resisting it for a while

Most people have tried this

They know and it gets harder and harder every week

And then suddenly you crack and then you say, oh

I've I've given up now. I'm back and often you swing above it yo-yo

Yeah, and that and that yo-yoing is probably the worst thing you can do because it just

Makes your you know, you got no consistency

On that point of exercise

there was a lot of contention last time we spoke around the subject matter of exercise because a lot of people go out and do

cardiovascular exercise

They run on a running machine in order to try and lose weight

But you and many other people that I've spoken to have said that that's not a great strategy for weight loss

Yes, lots of studies have done and said

People are trying

You know to lose weight conventional by conventional means we're not talking the zoe method but the old-fashioned ways of calorie restriction or

You know changing to keto diets or whatever it is and if those people are

Put on exercise or no exercise at the same time. Does it help them?

and

Generally it doesn't

Okay, so

And if you do exercise alone

Then there's no evidence as many people gain weight as lose weight

on exercise

So you think why is that? Well

If you think it through

exercise

It is a I'm not knocky. I exercise every day. I love it. It's great for my brain and my heart and everything else

and reduces lots of diseases, but

People have got to separate that from weight loss if we're going to make any progress here And if you've got too much, you know excess fat on your body

Exercise alone is a terrible way to deal with it because you like saying I'm not going to deal with my

diet

I'm just going to run it off in the gym and keep taking my supplements and do everything else And what happens for most people is that their metabolism slows down

the

signals of hunger increase

after exercise and

Psychologically people think oh well, I've done some exercise. I've burnt off those calories

You know, I can have that doughnut or whatever and so subconsciously they're also maybe snacking slightly more

than they would be

And that's why for most people it doesn't work now. I know people got upset last year, but some people it does work

and this is probably

There's a different response. We don't all respond to exercise with appetite signals exactly the same way

But for as many people it did work

There are people that made them actually put on weight

Do you see what I mean? That's why the studies show no difference

So you always find someone who writes do you say Stephen this guy's an idiot because I you know, I did this and I lost

you know 10 kilos

but

This you know exactly someone else will say I did this and I gained 10 kilos and I thought I was doing the right thing

so the point is

you can't rely on it and

it's when there's something obviously

Modifiable like you're dying. It's so easy. We've got so much choice now and what to eat

We're not forced to eat ultra processed foods or low fat this or or whatever. You know, we can make those choices

We should be doing that not trying to say am I lucky?

Am I that small percentage of person that can do this purely from working out more in the gym? Supplements you mentioned there. That's the next thing I wanted to ask you about supplements vitamins my

House used to be

stacked with supplements and then after our conversation last time round

I look at them most of them like they've lied to me like I've been a victim of marketing of sorts

And I've got every bloody supplement. I've got your omega 3 vitamin D

electrolytes calcium vou name it. It's still in my house

What is your view on these supplements?

In general my view hasn't changed at all that

The vast majority of supplements are completely worthless

But there are some that are useful for some people

some of the time

like

Like there are some people who have vitamin D deficiency

who black people

Yes, some black people black dark skin people living in

Places with very low, you know, if they're living in scotland

And they might have poor diets that don't have much vitamin D in it

Those people could probably do do with some supplementation over winter because they produce less vitamin D than

people with lighter skin. Yes that

Lighter skin evolved as a mutation

as

Humans came out of Africa in order in order to survive in lower sunlight areas. So naturally

whiter skin people have a

They're less protected against the sun, but they have a better vitamin D production system. So generally darker skin have more problems

So I used to see many patients

And often they don't go in the sun either because culturally

You know, they cover themselves up and so that that's a problem. So there definitely are people who can take

Benefit from taking some of these vitamins. I'm not saying that at all

But the idea that everybody should be taking them is just madness

there's no evidence that

in my field

Of osteoporosis that taking vitamin D and calcium actually prevents

osteoporosis or bone disease

Although for years and years we thought it did but all the big studies now show that's not true

if you take calcium

All the studies are suggesting that not only does it not have any benefit in terms of

bone or muscle health

But it can adversely affect your heart. So

because the calcium you get in in

capsules or supplements you're taking one big lump of it at a time rather than

Getting it in your green vegetables, which would be slowly

Broken down and absorbed in your gut in ways that your body can deal with so you're getting this

It's like someone injecting it into your vein

Is very different to being slowly given it

Uh throughout 24 hours as the way nature intended what what supplements then could most of us benefit from taking

If you have a good diet you won't need any supplements

But most of us don't have a good diet

SO

So what do you do? Do you promote supplements and say don't worry about your diet?

Which is what the marketing companies want and the vitamin companies want

They want us to forget the diet keep the ultra process food stuff coming keep it all coming guys This junk food no real whole foods no plants no fruits. That's fine. You guys are going to need some

vitamins

and

That may be true for people on very poor diets. You know only eat beige food

Maybe they do need some uh supplements

but

I think

There's no evidence

However, there is very little evidence that people who do take supplements are any healthier than people that don't take supplements

So it's not so you could say people say oh, it's like an insurance policy. I'm taking this insurance policy

Therefore, that's a good reason to take multivitamins, etc. And I've heard that said even from some epidemiologists and doctors

but

to my mind

Just as likely to do your harm as it is to do any good and it definitely is affecting your wallet

What about omega-3? I take that as well

The trials of that have shown it doesn't work

for reducing heart disease or

Any other major disease unless you've just had a heart attack

alcohol

I've just given up alcohol not really told anybody this but about two months ago now

I decided that I could see no net positive in my life. There wasn't any sort of social lubricant which sometimes

people cite as being the

reason to drink alcohol. So I gave it up

Entirely and it's been really an interesting experiment in giving up alcohol

I was one of the people that sat right on the fence didn't think I had a bad relationship with it

Um, didn't have a huge reason to drink it didn't drink it that often anyway

And then I decided one day I'll run the experiment of just quitting and see what it's like

And there's been multiple situations where just out and about wait waiters who are maybe a little bit poorly trained have literally tried to force me to drink alcohol

Like one particular waiter was like go on. This is not alcohol. This is art

I'm just going to leave the bottle here right in front of you if you change your mind

That one particular waiter

Um, and then all the other social contexts where you're just like for it's just assumed that you drink What is your stance on alcohol?

Well, you certainly don't need it. Okay, so

Most the studies are pretty consistent say that

The more alcohol you drink the more your chances of all kinds of diseases and problems

There are

Some exceptions to that

That comes down often to the Mediterranean effect

People who drink a glass or two of red wine do seem to have less heart disease

But they won't be protected from other conditions

So they won't be protected, you know from cancers or

Um

Some strokes etc and lifespan is sort of unclear in that particular group

So in general alcohol is bad for you. It's no no doubt

but

And so if you don't drink, I don't think I would say to you steven

You're wrong. You need to be start drinking, uh red wine

But for those people who who do drink or drink occasionally small amounts

What I would say to you is do

There are some drinks that are healthier than others

and

Red wine is one that's been shown to reduce by about 30 percent

Your risk of a heart disease in most studies and it's not clear absolutely clear cup

But if you drink too much, it's actually goes bad again for you. So it's really quite a small window

Um, and there might be some other drinks in the future that might be healthy

And this comes back to plants because when you're drinking wine you're drinking fermented grapes

Right. So the alcohol is bad fermented grapes are good

So in the future, I'd like to see us

getting

Nearly zero alcohol wines and they're they are coming

And I I tasted some from canada etc where you can get a like a 1% wine that you can't

1% by the way is it's what's in kombucha's you can't metabolize you don't notice it

And if they have all those benefits, they could be that new

Era of actually healthy alcohols and there might be some ciders as well because they've got the skin of the apple

But actually all the other alcohols have no real

health benefit

What about sleep and the gut microbiome?

I've I've wondered if there was a connection between how well I sleep sleep has become this obsession in my life

I I feel like I'm a competitive sleeper now

I really enjoy the process. I've seen the variants in a well slept night and a poorly slept night on how on my mood

And how I perform how I'm how my brain works

What does the research say about the role that sleep plays on our gut microbiome and on our nutrition?

They're all interlinked so

A bad night's sleep means that the next day you're going to

have a bigger sugar spike to the same

bagel or

Breakfast that you had. Sorry. Sorry. If I have a bad night's sleep, the same food will give me a bigger sugar spike. Yes

SO

It upsets all of your metabolism, right? So as you were saying, I feel better after a good night's sleep Your body's metabolism is also different. So a disrupted night's sleep means that

Your body will overreact to sugar

You're more like to have a sugar dip after it and feel tired

And you're more like to feel hungry and

crave more carbohydrates after a bad night and I think most people listening will

Think of that. So, yeah, if I really rotten night's sleep, you sort of get up and you your body craves something to to help you through this, you know, and

Everything is is out of a sink and people who are sleeping poorly

will have

Less healthy gut microbes than those that don't we we don't yet know

Which way around that relationship goes whether

Sleep is driving the microbiome or the microbiome is is affecting sleep, but we know they're interrelated

so

the other thing we've shown is that

Generally as you've found our body likes

A consistent pattern of activity and rest

So going to sleep at the same time waking up the same time is really good for your body

You feel better and nourished now if people

are

Say changing by a couple of hours hour and a half two hours at the weekends

thev're

sleeping later

And waking up later

This affects also their sugar responses and their gut microbes

so

We know that this consistency of approach is really important for everything in your body now It doesn't mean I don't want to tell people they should never go out or party because

You know social networking is very fun

But just think of that in mind particularly if it's in your control and it's just you know watching another netflix movie, you know

Because it's the weekend may not be the smartest thing to do if you want to feel

Really good long term and it's this consistency is coming out again

Linking this this idea of nutrition how we respond to food, but also

Involving our gut microbes. So yeah sleep is incredibly important. It's all part of the holistic message

Someone told me that the time when we is setting our circadian rhythm more than  $\frac{1}{2}$ 

Many other things that we do I used to think that light was the thing that was had the greatest influence over my circadian rhythm

my like internal body's clock

What time my body thinks it is

but

Food has a big impact on that circadian rhythm. So I'm absolutely yeah

All the studies are pointing to that. So I used to think like you that yeah, you know

When I was going to the us or whatever the most important thing was to

Get out there and get in the sunlight or whatever and not worry about my meals and just eat

because it when I'm jet lagged

I was always hungry anyway

but now

You know really focusing on fasting and trying to eat at the time

Of where the time zone you're trying to

Fit into is much more important than than sunlight. So yeah meal timings

are increasingly important

In science and I think this is one of the really new exciting areas and it all fits in with this idea of

You know getting your your rest periods really well worked out your activity periods

Not messing them up not eating when you're supposed to be resting and uh not

Doing things out of sync and so the people that do deal with

time changes and jet lag

Generally, they're often fasting on planes now not eating all the food it's offered and thinking about

What how they want to kick start their new clock when they when they get to their destination

So this idea that I had of getting my assistant to schedule

What time I work out every day and what time I eat every day is a good idea

Yes, as long as it doesn't become a processional

I would say because some people there's no risk of that with me

So, you know people listening, I think these are often good ideas, but again if you go for the 80 20 rule

Because you can get obsessed about anything whether it's exercise. It's training

It's sleeping and then you get anxious about it if you don't do it every day

So realize it's important, but realize some things are more important than your schedule

Okay, and things like friends and having fun and and you know

Absolutely crucial and this is all part of our you know

Philosophy we've been trying to build with Zoe is about

Food is about enjoyment and we we mustn't break it down to mathematical formulas all the time

We've got to realize that life is important to do everything

And you know we can all have a day off my last question. I think is maybe one that

Nobody's asked you before

I'm sure a lot of people have probably asked you it. Um

I'm a dog owner

Got a little french bulldog who's eight years old now called Pablo

When I was pouring his food out today it dawned on me that his food is heavily heavily processed

Do you have any advice on what we should be feeding our pets our dogs our cats?

Before we started Zoe, I did think of doing a

gut dog dog microbiome

map my pet

Project and I did look into this but I'm not up to date on it

but there's lots of evidence that the

the food the pellets

I used to give our dogs, which I thought were great

Are the equivalent of ultra processed foods just like you said and that dogs who are given whole foods

Live longer and have less diabetes

Put on weight less and are much healthier

So I believe that the same thing that applies to humans applies to dogs

The canned stuff that smelled horrible was as they still use that but we were told that the pellets were healthier

and because they contained all these extra vitamins

And it was this concentrated source that was perfect for them

And if you look at it, it's exactly the same as ultra processed food

And that's probably why our pets are getting as obese as we are. They're getting diabetes. They're getting chronic diseases

they're getting arthritis

And I think there is some evidence. I'm not sure how good it is that if you convert them to whole food diets whole meats

Just eating

The same that we might be eating or eating our our scraps. They will do better

So maybe you should try that

I do I was thinking this when I saw the numbers I heard that zoe now has more than a hundred thousand members  $\boldsymbol{I}$ 

And I thought you know getting to look at the data of a hundred thousand people

I'm not saying that you look at the data, but just having access to the patterns and the

Insights that you get from such a huge amount of people many of which tens of thousands of which are inputting food diaries every day

You must have had so many like eureka moments or

incredible

insights from that bird's eye view

That like there must be some things that are just you've grown in conviction and passion about because of that perspective

Well, we're seeing things that we've never seen before we've discovered four thousand new species of microbe

Just you know in the last few months

Each of these could be

Totally novel or useful for therapeutics or diagnostics

We found things like this this parasite the blastocystis

We're finding links with new foods that we could start to

Give people advice on about which which foods to eat to improve which microbe

And you know as we go forward in the future we'll be able to perhaps predict

microbe

combinations that look like they might prevent cancer and

heart disease or interact with your

Medications to make antidepressants more effective or hormone replacement treatment more effective. So

I think it's all happened so fast

And it and it's just incredible that the response that we've had

Zoe and the people are all contributing their data to this community

that I you know very soon we're going to be a million people

And it's such an exciting time for scientists like myself knowing that

You know we're going to unravel all these secrets and uh, who knows where it's going to lead Last time I asked you a question because because when we share so much advice on food

I think it's it's nice to close on

an overarching principle

Nice overarching philosophy for everybody to take away from this conversation and everything we've discussed

What are your words with that overarching principle or philosophy be towards our health and our nutrition and our diets?

You can't go wrong if you

Do things that are going to be good for your gut microbes

and so

thinking

On behalf of your gut microbes or your pets as you call them think what would they want to eat? How would they want you to behave?

And if you do that you're going to be eating all the right things and avoiding all the bad things And all the rest generally follows. I think that's the simplest advice I can bear and you know If and realizing that when you eat food, you know, you're not alone. You've got these trillions of microbes there

Waiting for your every move and your choice

The closing tradition on this podcast is that the last guest leaves a question for the next guest not knowing who they're going to leave it for

And I love this because it changes direction a little bit the question that's been left for you Is what is a modern positive vision of

masculinity

Did you save that one especially for me?

Have you got suns I've got a sun yes

Um, so I've got to think like him. Have I um, what's a positive vision for his masculinity and a

modern one?

It's

Probably someone who's prepared to go 50 50 on all the chores in the house at the moment. I think that's the uh

I think masculinity is going through a tough time at the moment and um,

I think uh, I realize there is a revolution going on. So I think it's

it's definitely about being flexible

and

losing a lot of those those stereotypes

And uh going with the flow. It's what I would advise him

It's quite too late for me, but um, it's a confusing thing

That's what the guest was talking about how young men are very confused in their masculinity what it means

What it is to be a man what it's not to be a man these days and really trying to give

He was that guest was really trying to give men an answer for that question of like young, you know, masculinity because the data shows

Young men are suffering

tremendously if you look at the suicide rates or if you look at the putt, you know, um employment rates or the education rates or

uh dating all those in those areas. So

There's a bit of a as you say a revolution going on in masculinity and what it means to be a man Yeah, don't be ashamed to be male, but be flexible and try to adapt to the changing world. I think that's that's it

Tim, thank you so much. Thank you for your wisdom. You've definitely changed my life and I know from all the feedback I got

In our last conversation, you've changed the lives of many many people through your work But also more broadly through what zoe's doing. I can only speak for myself. Obviously I'm I have a relationship with zoe. I'm an investor in the company and I they sponsor the podcast but in my life the key the significant changes that I've seen because of the insight and the The fact that zoe has turned the lights onto my nutrition have been

Pretty much my whole life. I had gut problems and I didn't really know why and I just accepted it I had was always bloated. I had pains in my um my gut and I just thought it was

Normal, you know, I thought as a lot of people probably think I thought I was broken in some way And this was just the way that my body was born and then as I've done this podcast

I've realized to not accept this idea that I was born broken in any area of my life and to

To look a little bit more about how there might be a misalignment between what my body wants and what the modern world is giving it and through zoe I was able to

completely remove that

Decade long pain in my gut by focusing on foods that had a good relationship with me So I thank zoe for that and I thank you for that and the work that you do in spreading the message because a lot of the things you say, you know

They ruffle feathers and they and I think I think when things are positively disruptive It's an inevitability that they ruffle feathers because there is an incumbent that is experienced

cognitive dissonance

There's an incumbent that feels threatened or challenged in such a way

But I think that's how innovation and positive change occurs. So thank you

Pleasure hope it works

Let's talk about zoe

Who you may know because they're a sponsor of this podcast and I'm an investor in the company You guys know health is my number one priority zoe's growth story has been absolutely incredible so far

They're doing science at a scale that I've never seen before

Because of their members and recent breakthroughs in research

They can now continue to offer the most scientifically advanced gut health test on the market

Previously the test allowed them to analyze 30 bacteria types in your gut

But now thanks to new science, they've identified 100 bacteria types

This is a huge step forward and there's nothing else that's available even close to it on the market at

So to find out more and to get started on your zoe journey visit zoe.com Slash steven. You can use my exclusive code ceo 10 for 10 off. Don't tell anybody about that. Okay, just for you guys You