



Part 2: Is that a steroid in my supplement?

6,262 words

18 April 2018

Australian Broadcasting Corporation Transcripts

ABCTRS

English

(c) 2018 Australian Broadcasting Corporation

More Australians use sports supplements than almost any other country – but do we know what's in them? triple j reporter James Purtill and Alex Mann investigate the killer contaminants fuelling Australia's body beautiful obsession. The team talks to supplement importers who are selling banned 'synthetic steroids,' off the shelf.

Alice Brennan: Hi there, Alice Brennan here. Last time, on Background Briefing:

Matt Pearce: ...you go to your local biggest gym, you could be in there for 10 minutes and you can have steroids in your hand.

Alex Mann: Are they easier for people to get than before?

Peter McErlain: I think demand is the problem.

Megan Voller: The profits that were available were staggering.

Alice Brennan: Alex Mann and Triple J Hack reporter James Purtill went deep into the steroid black market, the criminal networks importing ingredients from China and cooking up gear in backyards here in Australia.

And we met Matt from Newcastle who was dealing steroids for his brother and his mates when one day he got a knock on his door.

Matt Pearce: They yelled out, 'It's customs!' I looked out the door and they had one of those things that knock down the door ready to knock down the door. And then obviously your mind casts back and then I realised what they were doing there.

Alice Brennan: But James, we haven't heard the end of Matt's story, have we?

James Purtill: No, and during the interview about his history with steroids, he suddenly got up from the kitchen table and marched around opening doors.

Matt Pearce: So this is like a junk room so to speak. This is...

James Purtill: I was thinking what the hell is going on here...

Matt Pearce: These tubs here are all 25-kilo tubs. A little bit of the protein is stored here in case people need it, like wholesale capsules, they come in 3,000 each package, so you're looking at quarter of a million minimum order, so it's a lot of money.

James Purtill: Supplements. He told Alex and I he was importing sports supplements.

Alex Mann: Yeah, and the whole time we were talking to him about steroids, we're in these rooms in his house and they're crammed with these big brown cardboard tubs.

James Purtill: This is such a legal grey area. Supplements can be a really legitimate way to bulk up, get ripped, but the rules are changing all the time, and the ingredients are too.

Matt Pearce: Your big suppliers are always gonna change it with something, so they ban one thing, they bring out something else.

Alex Mann: 'They ban one thing and they bring out something else'.

James Purtill: I heard this countless times while investigating sports supplements; random companies on the other side of the world are always testing the limits of our national regulation, they're adding new ingredients to make their stimulants more explosive, their fat burners more powerful, their weight loss more slimming.

Alice Brennan: So the question is, how do you know what is actually safe? This week on Background Briefing, part two of our co-production with Triple J's Hack. James Purtill delves into the murky world of buying and selling supplements, where the laws are constantly shifting, and what's safe to mix up in your morning shake is not always clear. Just a warning, there'll be some strong language throughout this story.

James Purtill: I figured the best place to start was a gym. This one is in Western Sydney, tucked in a suburban business park next to a kindergarten and a mechanic. It's one of a US chain that started around the time of the Sydney Olympics and has millions of members in over 30 countries. The manager there introduces me to some of the regulars.

Holly: And then there's Jared who is the personal trainer over at the other Castle Hill Central. He's in bodybuilding competitions and stuff.

James Purtill: Oh cool.

Jared: I'm the bodybuilder.

James Purtill: Great.

And that's how I meet Jared. We're crammed into the manager's office, and he's so big he's blocking the fluorescent light.

You're massive man, huge.

Jared: Thank you.

James Purtill: Jared is 24 years old with a big red beard, he looks a bit like a fire engine. And in this gym he's The Dude.

Jared: The most I've shoulder-pressed is 150 kilos.

James Purtill: And so straight up I ask Jared what he thinks about supplements.

Jared: So I've had the case where I've taken L-carnitine to an excess. The maximum dosage for most people is usually 10 grams, I was taking 20 to 30 when I was prepping for a show. And I was taking so much, my sweat started to smell like fish. Yep, my sweat was smelling like fish, so that was interesting at the time because I had a partner and she fuckin' hated it.

James Purtill: Do a lot of people here smell like fish?

Jared: When there's like bodybuilding comps coming up and there's quite a few competitors in the gym, yeah, the gym starts to just stink.

James Purtill: So it's basically the smell of all these supplements being excreted through the skin.

Jared: When it can't be broken down properly and expelled, it goes through your pores.

James Purtill: Australia is in the middle of a gym and a supplements boom. Each year more than 800 new gyms open around the country, and we're among the highest per capita consumers of vitamins, dietary supplements and sports nutrition in the world. Sales have grown by more than 50% in five years to about \$3.7 billion dollars.

Jared embodies the gym and supplements trend. He's training up for a competition where he has to deadlift cars, pull trucks and carry heavy wooden beams.

Jared: I'll obviously use creatine all year round. I'll use L-carnitine, I'll take a more thermogenic pre-workout. I'll have glutamine and protein. I'll have an intra-workout as well. I take a sleeping aid because when you start prepping for a bodybuilding show, you actually start sleeping less. I'll double my caffeine intake from coffee or caffeine stimulants and I'll increase my vitamin B intake, vitamin C intake to keep my immune system up.

James Purtill: How many things are you taking there?

Jared: Pre-contest I can take anywhere up to 20 different types of supplements.

James Purtill: Now, Jared says all the supplements he takes are legal, and he also says he's come a long way from the fish odour incident. He's been learning about the science of supplements online and through

Page 2 of 10 © 2018 Factiva, Inc. All rights reserved.

other bodybuilders for the last few years, and he seems pretty confident about this self-taught ability to navigate a bewildering array of products and ingredients, and he wants to share this knowledge.

Jared: As long as that means that kids will wise the fuck up and actually think for themselves.

James Purtill: But privately I have my doubts about this ability and whether the desire to compete and be stronger means you will experiment with the more hard-core stuff.

In the US, a recent study found supplements cause more than 23,000 emergency department visits every year. Five years ago a popular US-made diet supplement containing a powerful herbal extract caused an outbreak of liver disease; 47 were hospitalised, three needed liver transplants, a woman in Hawaii died. And Australians had bought this supplement online.

Jared: So just shake it up and drink.

James Purtill: Before he trains today, Jared mixes up a US-made pre-workout powder. This contains stimulants to help him train harder. And when I google the brand later, the reviews describe its stimulant affect as 'seriously intense' and 'legitimately terrifying'. One says it's 'like drinking the liquefied screams of a thousand burning wasps'.

Jared: I'm not saying it's bad, it's just I spilt some on my face. It's orange-pineapple, it's quite delicious, very sweet.

James Purtill: Can you read out those ingredients please?

Jared: Sure, so there's beta alanine which is a stim, L-Tyrosine another stimulant, caffeine which is another stimulant, creatine HCL so that's another form of enhancer...

James Purtill: So you know all those ingredients?

Jared: Pretty much I know what effects they're going to have on my body if I was to take them.

James Purtill: The story of where supplements come from and whether they're safe spans the world from Chinese labs to US steroid cops to Australian backyard importers and Bondi Junction supplement shops.

Regulators are struggling to keep track of what new wonder chemicals are turning up in over-the-counter products, and that's just the stuff on the label. Lab tests show supplements bought in Australia are also tainted with dangerous drugs like steroids. We discover thousands of dollars of prescription-only drugs, including a potential carcinogen, are being sold in plain sight in Australian supplement stores under the cover of being research chemicals.

Now the man who busted Lance Armstrong says Australia needs to watch out.

Jeffrey Novitzky: It's a Wild West industry. I'm sure this issue exists in Australia. Really there's not a country I think that I've seen that escapes this issue. Young kids, teenagers, many cases unknowingly using these supplements that contain the prohibited substances and suffering organ damage. I saw liver transplants, kidney, liver failure, some really scary stuff.

James Purtill: Maybe you can tell us where we are.

Jared: Okay, so we're currently on the outskirts of Blacktown, and we're at a supplement shop. And we're going to go there and pretty much just look on the shelves and just see what supplements are available pretty much and see how easy it is to pick up banned supplement ingredients.

James Purtill: Let's take a look.

Jared: Yep, let's go in.

James Purtill: If you've never been in a supplements shop before, imagine the chemical aisle of a hardware store, a health food boutique and a pharmacy that also sells Batman-theme protein shakers. There's a couple of low aisles, bulky three-kilo tubs near the floor, and then rows of smaller jars, and the colour scheme is alien-goo-green and death-metal-black. There's no beige in a supp shop.

Jared: Okay, so you have just your normal pre-workouts, and then from those you have stim, non-stim, and then you have fat burners you take when trying to metabolise or oxidise fat. Then you have intra-workouts. Then you have your protein blends. You also have test boosters as well. Estrogen regulators. From there you have your protein bars and stuff like that, protein cookies. Then you have other stuff like low calorie sauces, and then you have women's only products, which is the same thing as male product but it's just been branded for women.

James Purtill: So everything from high-stim pre-workouts to protein pancake and baking mix.

Jared: Even protein peanut butter.

James Purtill: As sales increase and supplements move into the mainstream, supplement makers are increasingly targeting women. One feminine tub of protein is named Lean Petite and it's pink and white, while the men's range has big bold font and manly pseudo-scientific words like Synth, Isolate, Nitro, Pro Complex.

James Purtill: Are the women's products more expensive?

Jared: Yes, they are.

James Purtill: And they're the same thing?

Jared: Pretty much.

James Purtill: In the aisle of fat burners, Jared reaches for a jar of powder with a little 'made in the US' flag on the label and a promise to 'enhance testosterone'.

Jared: There's N5-carbamoyl-L-ornithine. Then there's 2-Amino-5-guanidinopentanoic acid, hydrochloride.

James Purtill: Do you know what any of these things are?

Jared: Jesus Christ, there's literally seven things I've never heard of in my life in this product. That's fucking scary. I've never used that product and I don't think I ever will.

All right, so we found about three or four pre-workouts on the shelf which are common use that have at least one or more of the banned products to look out for.

James Purtill: These products contain an ingredient banned in October but stores can sell stock that was imported before the ban.

I mean, I was looking at a bunch of other labels, pretty much everything in there, except a few, were made in America.

Jared: Yeah pretty much. That's how it is, a lot of the products you get are all American.

James Purtill: All right, let's go to another one.

Jared: Let's go to the next destination, yeah, let's hit it.

James Purtill: I've been working on this story for two months with Background Briefing reporter Alex Mann.

Alex Mann: Hi, how're you going?

James Purtill: I'm good Alex, I have a job for you. Here I have a pre-workout, it's called...

Alex Mann: DS is the brand I think. Frenzy, rapid energy surge.

James Purtill: This is a supplement that was banned in Australia about six months ago, and you can still buy it online for about 60 bucks.

Alex Mann: Fruit punch flavour, naturally and artificially flavoured.

James Purtill: I want you to work out if it contains banned ingredients.

Alex Mann: Contains creatine, monohydrate, taurine, l-citrulline, l-carnitine, l-tartrate, 4 methyl 2 pentanamine citrate, pouchong tea, PenTenergy in brackets.

James Purtill: Your tool is the 301-page official list of poisons, March edition,

Alex Mann: Oh my god. So how long do I have?

James Purtill: I might give you about two minutes.

Alex Mann: Okay, three, two, I can't say any of these words...Schedule 9, Schedule 10...

James Purtill: What I haven't told Alex is that pouchong tea, one of the ingredients on here, is actually a pseudonym. It's a pseudonym for the poison DMBA.

Alex Mann: I'm right here, I can hear you talking. Right well, here we go, there's the pouchong tea. And what did you say? DMBA. Let's have a look. A-ha, here we go there's something here called 1,3-Dimethylbutylamine, brackets DMBA. Right.

James Purtill: Does it say pouchong tea?

Alex Mann: There is no pouchong tea in here.

James Purtill: So how were you meant to know this was DMBA?

Alex Mann: I mean, there's no way. You'd have to actually just know that pouchong tea is code for the banned substance and if you didn't know that, there'd be no way you'd know.

James Purtill: So DMBA was the go-to stimulant for hard-core pre-workouts and it was banned in October. But store owners have told me it's just impossible to know the names of all the ingredients and keep up with what's been added to the list as well.

Alex Mann: Just there's no hope. I mean, there's no way you can ever control what actually ends up on the shelves of a supplements store. These guys would have no idea what they're putting on the shelves.

James Purtill: And what makes it even harder is it's not the pseudonyms like pouchong tea that are clearly written on the label that you have to worry about, it's also what creeps into the supplement as a contaminant.

So we're going into the lab, there's a big biological hazard sign on the door.

Kristine McGrath: So once we step over this red line, we need safety gear.

James Purtill: Okay, which we have.

Dr Kristine McGrath has taken me through a set of locked doors and dressed me up in a disposable blue gown and safety glasses. She's showing me around the University of Technology Sydney biology lab. We're here because a series of tests have shown steroids and other dangerous substances are turning up in supplements sold in Australia. I want to know how many might actually be tainted.

And it's a pretty vast space, with lots of beakers and bubbling things, as you'd expect.

Kristine McGrath: That's right. This is my aisle. So we have an incubator and that's where I essentially incubate and grow my cells for the bioassay.

James Purtill: It's like a mix between a computer and a bread box I'd say.

Over two tests, Kristine and the team selected 130 supplements from shops in Australia, as well as online retailers. And they found steroids in 24 of those products.

Kristine McGrath: My reaction when some of them had steroids in them was, gosh, that's bad.

James Purtill: Exactly how many supplements on sale in Australia are tainted with undeclared ingredients is impossible to say. This is because supplements are not tested before they go on sale to the public. But there is some testing of supplements on the shelf. The states test food supplements, the Commonwealth tests drugs. In the last two years the New South Wales Food Authority has only tested three food products that fall in the supplements category, that's three out of the hundreds of brands on sale. And the Commonwealth hasn't done much better. By our own analysis the Commonwealth tested about 28 products that could be described as sports supplements in a 12-month period. More than half failed, and most often because they contained a prohibited substance.

Basically we don't test many products, and when we do, a lot fail, and the failure rate has been going up for the last five years.

When private labs do their own random surveys of Australian supplements they find around one in six are tainted. But researchers rarely publish the names of tainted brands. Two years ago a Harvard medical professor was sued for defamation by one of the supplement companies he named in a peer-reviewed study.

The brands aren't listed in the study, but did you alert any authority that you'd found the steroids in certain brands?

Kristine McGrath: I can't comment on that, sorry.

James Purtill: Okay, are these supplements still on sale in Australia?

Kristine McGrath: Possibly yes, they could be still on sale.

James Purtill: Where are you right now?

Jeffrey Novitzky: So I'm in Las Vegas right now. But a little later today I'm catching a flight to San Francisco for the weekend and then next week I go to New York where we have a big fight event next Saturday in Brooklyn.

James Purtill: Jeff Novitzky is a former top federal agent with the Food and Drug Administration, aka the FDA. I'm phoning him early on a Saturday morning from Australia to find out how steroids are getting into the supplements we're buying in shops.

In the early noughties, Novitzky received a tip a San Francisco lab was supplying banned substances to famous American athletes. Novitzky started secretly hauling away the lab's trash, taking it home and collecting drug samples and financial records.

Jeffrey Novitzky: What I tell people is I probably have had the unique experience of talking to more professional athletes that doped than probably anybody else.

James Purtill: His investigation led to a steroid scandal in baseball, and years later another investigation led to Lance Armstrong admitting he had taken performance enhancing drugs. Novitzky is now in charge of cleaning up doping in the UFC, Ultimate Fighting Championship.

Jeffrey Novitzky: One of the most common questions I'm asked by the UFC athletes is how do I know if a supplement is safe.

James Purtill: Contamination of supplements for elite athletes is a problem. But Jeff says supplements sold in stores are just as likely to be contaminated.

Jeffrey Novitzky: So there's fair competition but also there's health and safety issues. You know, I would on a weekly basis get reports with the Food and Drug Administration when I worked there, of hospitalisations from, you know, getting sick from liver disease, liver failure from using these substances. When you have this wide range of consumer purchasing and using the product, it really does become a public health issue. The raw material for these dietary supplements most often came from China. And I think that's where the problem and the issue originates. Basically how it works is the Chinese manufacturing facility will make a run of a raw material that maybe is, you know, an anabolic steroid. And then the next run of the material could be a vitamin or a protein. And frankly the machines aren't cleaned off very well or there can be cross-contamination through particles of the substances going through the air.

James Purtill: But in some cases there's also deliberate spiking of supplements?

Jeffrey Novitzky: Absolutely, I did see that as well. A lot of these manufacturers in the first and second run of their product would deliberately spike their supplements with prohibited and sometimes illegal substances, so that the first few months of that supplement being on the market the consumer and end user would really notice a difference from using that supplement, whether it be muscle building if it was a steroid, whether it be for energy if there was a stimulant in it.

James Purtill: Australia has stricter manufacturing standards than the United States. But there is no mandatory lab testing of source ingredients, and many of the source ingredients for supplements, for example that long list of chemicals we heard earlier, are made in China and sent here in bulk.

I could find only one supplement maker in Australia that tests all of its source ingredients. They said they began testing after they discovered a banned stimulant in a source ingredient from China, and upon investigation they found a third of their ingredients were not entirely what they claimed.

But this is nothing compared to the US where the FDA has identified 849 dietary supplements with hidden ingredients in the last 10 years, and this is just the supplements that have been tested. In the US they don't test supplements before they go on the shelf, just like in Australia.

Experts in America say less than 1% of all dietary supplements have been tested. The regulator can't keep up.

Jeffrey Novitzky: So in my seven or eight years with the FDA I saw dozens and dozens and dozens of potential cases go unworked.

James Purtill: The lack of regulation in the US is a problem for us because we buy a lot of sports supplement brands from the States.

So exactly how much are we buying from the US? New Australia Post data provided to Background Briefing shows a spike in the volume of health products being bought online. Over five years to 2017, online purchasing of vitamins and health supplies increased by 50% to a total of \$1.3 billion.

Alex Mann: G'day Matt.

Matt Pearce: How're you going?

James Purtill: My reporting partner Alex Mann and I are at Matt's house. Matt's the guy who was convicted of importing steroids from China and then turned to importing supplements. We're here to learn about these global supply chains stretching from China to the US to a four-bedroom house on the outskirts of Newcastle. And to find out what strange new chemicals are coming our way.

Matt Pearce: It took me about 10 to 12 months to set up the company and in that time I was just personal training. Once the company was set up we went with a very clear couple of products, went with proteins and some raws. Once that built a little bit we went into capsules.

James Purtill: Matt imports the raws or source ingredients from China.

Matt Pearce: Down in the warehouse on the central coast where it's bottled, they have all my pure stuff. At the moment there's probably about a tonne of plain aminos down there, and then in storage as well you're looking at probably another maybe 600 to 800 tubs made up, so yeah...

James Purtill: He bottles these ingredients under his own brand, and he also imports American brands.

Matt Pearce: Those products we don't actually sell anymore, they are discontinued, that top shelf. This American brand here, I had exclusive rights to those guys but with the new laws that have come in, 80% of their stuff is now illegal in Australia, so we can sell the stock we have but we can't reorder it.

James Purtill: That American brand Matt's talking about has been pinged for the banned stimulant DMBA, also known as Pouchong tea. But DMBA is not on the label. The only reason we know it's in there is because university researchers tested the product last year. They also tested another by the same brand and this is where it gets interesting; they found this contained a special hidden ingredient, DMAA. DMAA was banned in Australia six years ago after it was linked to the deaths of two soldiers. But here it is. This research was the first time we learned DMAA was in this product. So even when we ban an ingredient, it still turns up years later. Meanwhile, brand new drugs are being devised

Matt Pearce: In three months there'll be a new super product come out that they've found in some plant that grows only in Brazil that they're manufacturing for people. It's the same as everything, as soon as they ban one thing they bring out another thing. The industry is too big, it's worth too much money for them not to.

James Purtill: Matt says regulation is futile. You can't stop the supplements industry coming up with new ways of getting its loyal customers lean and ripped. And to prove his point, he says a new super product has emerged and sales are picking up and, guess what, he has a bottle right here. He places it on the table. This is SARMS.

Matt Pearce: A small white bottle. It only has 30 capsules in it, small capsules, that's a month's supply, white and green label, back writing. All it has is that it's for research purposes only, because it hasn't been trialed in humans to take it. Probably sell 200 bottles a month, 200 a month I'd say. I'm not a big supplier at all. Someone like...some of your big suppliers would be selling 50 times that.

James Purtill: Matt says he'll be making deliveries later this week, dropping off SARMS and other products to shops in Newcastle.

Alex Mann: Thank you so much for your time today Matt, it's been eye-opening.

James Purtill: So we said goodbye to Matt. He goes back inside to label supplements, and we set out to track down these big SARMS suppliers.

SARMS is the name for a group of compounds, Selective Androgen Receptor Modulators. Many of these compounds were developed in the '90s to build muscle after cancer treatment. But attempts to commercialise them as drugs have so far failed. As yet there are no approved SARMS medications. So instead of SARMS in pharmacies we have SARMS in bodybuilders. The black market is hyping them as the 'holy grail' of supplements.

They are said to be like steroids but without shrinking testicles and damaging livers. Whether they have other side effects we mostly just don't know. They're not approved for human use.

One way of measuring the spread of SARMS is through positive doping results. In 2010 one athlete tested positive for SARMS in the whole world. In 2016, 39 tested positive, including six Australians; a wrestler, a triathlete, a bodybuilder, a weightlifter, and two motorcyclists.

So how are mysterious experimental drugs being sold as research chemicals? And how much of this new product is being sold?

I'm on the train in Sydney and I'm going to meet a guy who claims to be the main Australian supplier of SARMS. Among the products he sells is a vial of something called GW-501516 or Cardarine. A quick search brings up a world doping authority warning from 2013. It says Cardarine was withdrawn from research by the pharmaceutical company and terminated when it caused cancer to develop rapidly in several organs of lab mice. In February this year the TGA ruled that sale, supply or use of Cardarine would be totally prohibited from June.

Ryan's online store is advertising Cardarine as a fat burner and, no, the sales pitch does not mention the word 'cancer'.

Ryan: We've just dropped in, we're getting a smoothie, we just rolled into the store and we're looking at products.

James Purtill: Ryan is 30-something, pretty ripped, wears board shorts, designer sneakers, button-down shirt. He's showing a bit of chest. Basically he's straight out of Bondi. And, surprise surprise, he used to work as a personal trainer.

Ryan: Surrounding us 360 we've got these big tubs of protein, we've got pre-workout stuff, we've got intra-workout, we've got post-workout, we've got every kind of powder you can think of under the sun. What's unique about this is it's a 30ml bottle and it packs more punch than 98.9% of every product that in here. That's why people are jumping on these things, because they work.

James Purtill: Ryan's product is literally on a pedestal, there's no way you enter the store without seeing this 'buy now pay later' box of tiny little vials.

Why is it in a glass box?

Ryan: It's in a glass box because it's expensive. One bottle is between \$149 and \$199.

James Purtill: \$199 for a 30ml vial?

Ryan: Yes, that's for one month. So you take one ml a day and that's obviously 30 days' worth.

James Purtill: Ryan suggests we hit the sushi train, and so over a plate of unagi he tells me about his passion for SARMS. And when he says the word SARMS, his eyes open wide with conviction. He says it all comes down to helping people.

Ryan: People need to know about these things, people need to experience them, you know, there's people that have injuries that need to heal.

James Purtill: That sounds very noble but it's not how the products are being advertised. The website says they are not for curing disease or treating injury. Instead it has photos of people working out, and it calls SARMS one of the greatest discoveries ever in the fitness industry. Bodybuilders are the target market, not people who need to heal.

Ryan: So basically I was chatting to this American company and I just said, look guys, basically what I want to do is I want to bring them here, I want to bring them to Australia.

James Purtill: Ryan ordered his first bottle of SARMS in 2015 and then he began importing SARMS commercially and distributing them to supplement stores. Health law experts say what he was doing was illegal. Unapproved supply of SARMS is prohibited. Ryan says his SARMS are being sold everywhere in Australia except Tasmania.

Ryan: Okay, so at the start when I first started it was about 10 bottles that we were selling a day, and it's now moved up to around 90 to 100 bottles a day.

James Purtill: That works out to more than \$5 million revenue per year. Ryan can track online sales through an app on his phone.

How are the sales going today?

Ryan: Good, good man. So we've got 18 orders now. I'm just going to go in and have a look at some of the data...

James Purtill: 18 orders, what's that worth?

Ryan: That's worth \$7,000 so far.

James Purtill: So you're looking at list of the names of all the people who have bought supplements today, and you've just tapped on one of the names and you can see their age.

Ryan: Yeah, we can see where they're from. So this male is 24 years old, he is from Queensland, he's bought S4, which is a muscle-building, fat-burning SARM.

James Purtill: When I google 'S4' later I read users on forums reporting a yellow tint descending over their vision, problems seeing in the dark, and blind spots. But Ryan seems un-phased.

So are these entirely safe?

Ryan: Yeah, so these are safe, as long as they are used correctly, as long as the compound is an actual SARM.

James Purtill: Whether or not they're actual SARMS, we don't know the long-term effects of taking these chemicals.

Are you worried the TGA is just going to ban them?

At this point Ryan waves away the microphone and refuses to answer the question. The TGA I'm referring to is the Therapeutic Goods Administration, the national regulator of substances like SARMS. And in fact the TGA has already effectively banned SARMS by not registering SARMS products as therapeutic goods.

What I should have asked Ryan was; are you worried the TGA is going to enforce its own rules? Health law experts say the TGA could issue Ryan with an infringement notice or it could apply for an injunction to stop him selling at any time. On top of this it could take him to court. It turns out there are serious civil and criminal penalties, fines of up to \$1 million and up to five years jail.

But I don't get to ask Ryan these questions, because he stops taking my calls. So I ask the TGA; can you just write 'research purposes only' on a bottle of SARMS and avoid any regulation? And the TGA says no, you definitely cannot. It says it is working with Border Force to stop SARMS being sold. It also says that not only is supply of SARMS illegal but so is possession. In New South Wales the penalty is up to six months prison.

How're you doing?

Jared: Oh not bad. I'm just at a happy point in my life, you know, you get to those ones.

James Purtill: Happy point?

Jared: You know, everything is going good.

James Purtill: Since we last saw Jared he's shaved his beard. He looks a bit clean cut. We head into the gym where he works as a personal trainer.

Jared has told me he's taking SARMS and I want to know what he knows about it.

Jared: Right now I'm actually running a SARMS cycle. So I'm running ostarine IFG, IGF, what is it, IG333 or something like that. It's a growth hormone inhibitor, so it helps to increase growth hormones, so my recovery can speed up while I'm sleeping. There has been no long-term conclusive studies to say exactly what it's going to do and I know that's the case but, you know, I am a little nervous as to what it does to my body, but I have health professionals working with me the whole time, so I get a blood test done every three months.

James Purtill: But doesn't that just make you your own human guinea pig?

Jared: Yeah well, that's what happens when you take supplementation generally, even just the stuff off the shelf, you don't know exactly what's in it and what it's going to do to you. So, you know what, in any case just take a leap of faith.

James Purtill: Did you know that the TGA made one SARM, cardarine, Schedule 10 in February?

Jared: No, I did not.

James Purtill: Have you ever taken cardarine?

Jared: No, I haven't.

James Purtill: That's a good thing. The reason they gave was it could be a carcinogen.

Jared: Really? Well, that I didn't know. I guess I'll have to do my own research on that and find that out, because I have got friends who do take it.

James Purtill: I text Jared the link to the TGA's scheduling decision.

Jared: So I'm just looking up the cardarine now. That's really scary.

James Purtill: Do you think this scheduling decision will stop people buying cardarine?

Jared: Nope, not at all. In fact it might make the sales go up.

James Purtill: Background Briefing's sound producer is Leila Shunnar, our sound engineers this week are Isabella Tropiano and David Lawford, production by Brendan King and series producer Jess O'Callaghan, our executive producer is Alice Brennan.

This has been a co-production between Triple J's Hack program and Background Briefing. So a special thanks to my reporting partner Alex Mann.

I'm James Purtill.

Document ABCTRS0020180423ee4i0002t