### **NO MIRACLE CURES**

Women's Health and Wellbeing in the Face of 'Miracle Solution' Culture

#### INTRODUCTION: BIOTIN SUPPLEMENTS

I wanted really, really long hair. I had been thinking to myself for a while that I would look really good with a long, thick braid that got caught in my waistband every now and again. That was the goal. Patience was not winning out; I had had several years of crew cuts under my belt, and had managed to finally grow it out to a chin-length bob, but my goal was nearly two and a half feet additional to that starting point, and I did not want to wait. What's a girl to do?

It began with a Google search: 'how to grow your hair long'. I wanted quick and easy methods that would help supercharge my hair growth speed so that I could be at or close to my goal in a couple of months maximum. This, in essence, is where the entire rabbit hole began.

There was a Reddit thread, a few years old at the time, that detailed a biotin supplement that purported to grow hair very quickly after only a few months of taking it. I was instantly captivated. A magic pill to help me reach my desired length? Sold! I ordered some right away, judging the insane price tag to be merely pennies next to what my dream hair would be worth once it got here.

I took the supplement without reading another word about how or why it claimed to work. I used a whole three month's supply in an effort to get this to work for me, and it did... at the exact same rate of growth I had had my entire life.

I was perplexed. The ads! They were so convincing! What about the testimonials? As it turns out, despite my years of studying the effects of advertising on the human mind, I had in fact been duped. I was back to square one, with only an inch of hair growth in three months to show for it.

For a while, I chalked this up to poor genetics. My father's side of the family, from whom I get my hair texture and fineness, is notorious for having silk-fine, brittle hair. I would simply have to wait a decade at the current rate of growth to achieve my desired length. This, however, frustrated me. At the time I had a friend who, after chopping her waist length hair up to her shoulders at around the same time I began experimenting with supplementation, was already bemoaning her impending hair cut. Not a chance that she was just blessed with superhuman growth ability and I was not. I was once again motivated to get to the bottom of this.

Another Google search: 'biotin supplements not working'. More useful information this time around. As it turns out, biotin (the common name for vitamin B7) is not very useful on its own, as it is advertised and commonly taken. Biotin, as I learned, is one of the B-complex vitamins, is water soluble, and is abundant in plenty of foods that I was already eating a lot of. These three facts made for an interesting conundrum that I had honestly never considered before that moment: because B7 is water soluble, the body does not store it (more on this later). It is simply removed, along with other excess water soluble nutrients, in the urine. This means that all of the money I had spent on my supplements was for nothing; I was simply making extremely expensive pee.

I was ticked off, and more determined than ever to get to the bottom of this. There had to be some way to accelerate hair growth that was based in the science of nutrition.

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This, for me, was the kickoff of the last five years of my life. I have spent many long hours since that day working toward bettering my own nutrition, not only for the sake of my hair, but for the sake of my overall well being. I grew up eating once a day, believing that 'an apple a day' was all I needed in terms of fruit and vegetables, and that my period was just a monthly annoyance which could be avoided if I simply took the right combination of pills. Hopefully you are able to intuit from my tone that these ideas could not be further from the truth.

This work is best tackled in sections, each detailing a major wellness tip I have learned. This is replicative of the way the human body works. I believe in a holistic sense of wellbeing as opposed to separate and distinct bodily systems, which can be healthy in spite of, or apart of, one another. I strive for this work to reflect that world view. Ultimately, the human body is one system, and it cannot be called truly healthy unless all parts are in good working order. However, it is not practically useful to discuss or treat the body like this in a medical or every day context. This, I think, is where a lot of confusion about how the system of the body works might come from: it is tough to heal the body as a whole, especially for those of us who spent their whole lives learning that the body is merely a compilation of various organ systems. Therefore, we have devised a network of systems such as the digestive system, the cardiovascular system, and the nervous system, to help compartmentalise all of the different things that we know about the body.

#### ONE: THE BODY BOOK & YOUR CYCLE

It was theorised I would become a doctor. Like most children who learned to read early, I was considered fairly gifted, and my parents and grandparents did as much as they collectively could to push me along. I read a lot of books in my spare time as a child, about any and every subject I could get my hands on. Frequently, though, I was flicking through anatomy textbooks. I was fascinated, as many children are, by the human body. I remember for my birthday one year, someone gifted me a college level textbook on human anatomy and basic health. I was simply enamoured with this book. I must have read it back to front at least a dozen times

I misplaced that book somewhere along the way, but I remember a few things very clearly about it: it was the first place I ever learned that 'the menstrual cycle' is more than just bleeding and ovulating. There is a lot at play here! Let's start from the top.

There are dozens of books out there which describe the following points better than I ever could. I have a recommended reading list, which I will leave as an appendix at the end of this work. For now, the quick version of the entire menstrual cycle is as follows:

The first day of the menstrual cycle is the first day you see blood. It could be a lot of blood, or it could be barely-pink spotting. But this is the official first day of your cycle.

- As your period finishes, oestrogen production ramps up to prepare the body to release an egg (unless you are on birth control. More on that in a second). Many women report feeling more energetic, having less of an appetite, having a higher libido, et cetera, during this time of their cycle.
- ❖ Just before the egg is released, oestrogen production spikes. This is what signals to the ovary which will be releasing an egg that it is time to release it for that month. Some women report feeling a pain in or around their ovaries during this time, but it is equally normal not to. The pain will feel like a pulling or tugging sensation, almost like stuck gas or constipation. This is normal as long as you are able to go about your daily functions.
- ❖ After ovulation, the luteal phase starts. This oft overlooked phase of the menstrual cycle is absolutely vital to overall female health. After ovulation, progesterone slowly begins to build. If the egg released during ovulation happens to be fertilised, progesterone is what sustains the baby during the infamous 'two week wait' (again, more on this in a moment) before implantation. If the egg has not been fertilised, progesterone spikes and then plummets before menstruation. Maintaining progesterone levels is incredibly important for not only pregnancy, but for the immune system in women (Cable and Grider 2022 https://www.ncbi.nlm.nih.gov/books/NBK558960/).

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Sidebar: My bone to pick with terminology

Too many people are told that a woman's cycle means that at one point she releases an egg, and then later she feels crappy for a few days and bleeds. I was told this, the women in my life were all told this, and I guarantee that you, whether man or woman, were told some version of this as well. It's depressing. Women who learn about their bodies primarily from the public school system are taught so little about their menstrual cycle that many of them have very little clue about what the menstrual cycle actually is. Ideally, the menstrual cycle would not be called the menstrual cycle at all, but rather the ovulatory cycle, since ovulation is the major driver of the cycle in the first place, not menstruation.

In fairness to the medical overlords who have named everything, there is a good reason to call it the menstrual cycle: for most of history until relatively recently, the majority of women only show outward symptoms when they are menstruating. Even for those women who have 'easy' menstruation periods, the physical appearance of blood is, in and of itself, a symptom.

It is my thought that, to a certain extent, "The Powers That Be" rely on you knowing nothing about your body. It tracks on several levels, if you're constantly worried that something is wrong with you, or you panic and spend money on Miracle Cures, you're not only much easier to manipulate but an effective cash cow. I do not want that for you. You deserve far better than this.

<sup>&</sup>lt;sup>1</sup> Whether you'd like to name them as the government-medical complex, lizard people, a combination of the two, or something else entirely. Whoever you think is pulling the strings here.

I think this naming convention is entirely bullshit. I could wax lyrical about how unfair this is, but I think it's almost useless, especially when trying to reach an audience who doesn't know this yet, or one that could care less either way. I think it's worth thinking about, in any case. There's something substantial to be said for the fact that many medical conditions and other happenings of the body, such as menstruation, are labelled *symptomatically* rather than *causally*. It would be lovely if medical scientists cared to investigate symptoms enough to get this far.

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The menstrual cycle is one of the foremost indicators of a woman's overall health. If you have an idea of what your cycle is "supposed" to look like, you will have a leg up on knowing (a) whether or not you really are healthy, (b) an idea on what might be wrong with you if you're not, and as a bonus, (c) an excellent, artificial hormone-free way to make sure you do not (or do!!) get pregnant. Knowing my cycle has been one of the most empowering things I have ever done for myself, and it is my sincere hope that I can instil that feeling of confidence and autonomy within you, too.

As for the personal tie in, I started birth control at an extremely young age. Looking back, I was too young, and I am angry that no red flags were raised about this when it happened. I was sixteen, begging anyone for relief from some extremely painful periods that were unruly and seriously hampering my ability to live a normal life. I had read somewhere (very likely online, but the same information is available in many women's health textbooks) that birth control could help manage painful periods, and that the medication was generally very easily available and I wouldn't have to work hard to have a prescription written. This turned out to be true, but what wasn't mentioned was all of the consequences of this decision.

Firstly, I walked into the clinic with a friend, at sixteen, and walked out with a script for birth control the same day. The doctor attending my office visit asked me very little about my family history, and what he did ask me, he brushed right over: Does my family have a history of blood clotting? Yes, they do. He jotted some information down onto his clipboard and moved along with the questioning. No mention of my personal history, no real discussion about the consequences of taking these drugs ("Don't smoke while you take them. You won't be able to take them past 35 if you do." That's it!), not even a cursory phone call to my parents about the matter. I was on my way.

I took these pills for about three and a half years. In that time, I gained massive anxiety around developing a blood clot (though not the fault of the pills themselves, it was still a terrifying reality that I could not shake myself from worry of. More on hypochondria and other anxieties later), I gained strange depressive episodes that seemed to linger, and the pill changed the type of person who I was attracted to, which led me to not only intense unhappiness and a divorce, but a few times to challenges of my physical safety.

Sidebar: Rules of Attraction

Hold on, run that back? Yes, the hormonal birth control pill changes the types of men women find attractive<sup>2</sup>. Women who ovulate (a *critical* function of the female body, which the birth control pill just... stops. The effects of this we do not know! :) ) regularly look for not only men who will be kind and gentle partners, capable of fathering children and assisting with various things a pregnant woman may need, but also someone who is responsible, capable of protecting them, and who they want to mate with. Since the pill disrupts this cycle by stopping ovulation and filling the body with a steady source of progesterone, which tells the body that it is time to prepare for a baby (effectively keeping the body in pre-pregnancy mode), the brain is effectively duped into believing that it needs the kind and gentle partner who can perhaps assist them through early pregnancy as well as with raising a newborn.

You do not have to take my word on it, however. The best compilation that I have ever read of this information, including how your hormones as a woman influence your brain, your attraction to potential mates, and the rest of your body, comes from a book called How the Pill Changes Everything: Your Brain on Birth Control by Sarah Hill. The book is an unbiased, study-based review of the glossed over side effects caused by birth control that are seldom discussed with women (like me, and like many of you, I would be willing to bet) before they begin birth control.

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These changes happened subtly over a period of about a year when I first started taking the pills, and I wasn't ever made aware that these things could happen. I figured I was just developing anxiety over going away to school after graduation, and that it was affecting other areas of my life. I figured I just had terrible luck with men, and kept picking the weak, emotionally immature ones<sup>3</sup>. I figured anything other than the true cause of the issue was likely the case. I was young, inexperienced, and nobody around me had ever bothered to study these things, so there was nobody to warn me about them.

I would attempt to convince any woman I loved not to take birth control pills. There are a lot of people online who disingenuously feign concern for women who take these medications as part of a bizarre fetish against anything deemed 'modern', and unfortunately a lot of these types of people have become folded into this discussion. These people are incorrect, selfish, and mostly directionless with no value system apart from being para-socially contrarian. As a woman who has actually experienced a small fraction of the detrimental effects of hormonal contraception on the female body, I implore you to demand more from the medical professionals who insist they are 'treating' you. These pills do not help you. Constantly existing with an altered mental state is not helpful to anyone.

The menstrual cycle tells us so much about the health of a woman. In a world where so little is done to ensure that women are healthy, why would we choose to remove a crucial indicator of our overall health?

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Sidebar: You idiot. I menstruate on the pill.

<sup>&</sup>lt;sup>2</sup> What about women? Not much research has been done on homosexual women on birth control. I believe this is a critical gap in the research, and, as we will discover together, not at all uncommon as it comes to women.

<sup>&</sup>lt;sup>3</sup> Which, to be fair, is partially true! You can't blame the pill for everything; teenaged idealism included.

You *bleed* on the pill. You do not *menstruate* on the pill. Vaginal bleeding =/= menstruation. This is another thing oft not taught about the female body. In order for vaginal bleeding to be considered menstruation, it must be preceded by the release of an egg, and followed by a steep drop in the levels of progesterone a few days to about two weeks later (see above: the luteal phase). Contrary to popular belief (and belief that is expressed by *doctors*, mind you) *this* is why you bleed when you take the sugar pills in your birth control pack rather than the medicated pills: the progesterone supply as dictated by the medicated pills drops off when you stop taking them and *that* is what triggers your bleeding, instead of an egg having been released earlier in your cycle.

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So little is done, in fact, by those in the medical profession, to ensure the true health of women, that many doctors would rather a woman have an artificially regular menstrual cycle, than a natural irregular one. I recall a time, around three years after I had gotten off the pill, where I found myself sitting in the doctor's office, anxiously waiting to find out if I needed to be checked for ovarian cysts, or some other equally horrible outcome. My periods had been regular—down to about the same hour every month— for the last three years off the pill. I suddenly had a cycle with a total length of nineteen days, down from my regular twenty seven, with absolutely zero explanation I could pinpoint.

As the doctor looked over my chart, she tutted disapprovingly. "You know," she started, and I could tell she wasn't going anywhere I wanted to be, "you say you're not an anxious person, but you really do come here a lot with anxiety."

Unsure how to respond to this (honestly quite hurtful) comment, I redirected. "I just want to make sure everything is okay. I was told I should see a doctor about this, so I decided to see the doctor." This had been the pattern of my last several visits (not related to menstrual issues, thankfully) as well, and apparently she was getting sick of seeing me.

"Are you on birth control?" She asked me, looking over my chart to confirm my answer before I could open my mouth.

"I am not," I replied.

The doctor looked quizzically at me. "The only way you can regulate your cycle is if you begin to take birth control again. If not, irregular cycles are very normal, plenty of women have them."

It was at this moment I realized that she was not going to help me with what I came in for, but I wanted to try my last ditch effort. "I am not asking for a regular cycle, I have a regular cycle. I would like to know *why* my cycle is suddenly irregular after roughly 36 months of complete regularity. That seems strange to me."

"I don't know. If you don't want birth control, I don't know how to help you."

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#### WHAT?????????????????????

I wanted to scream. 'You are a *doctor*, are you not? Helping people like me is what your entire job is!!!!' I wanted to say. The conversation took a sharp left, ending in the two of us almost bickering with one another, and I left with a resolve to never set foot in that office ever again. I knew that there were issues when it came to doctors and handing out birth control based on my own experiences with the issue up to that point, but this cemented the fact that doctors are not *unable* to explore women's health. They are *unwilling* to explore women's health.

I never did go back to that clinic. I had had several negative doctor-patient interactions, many of which will be covered by this work, but this was by far the most egregious— and the rudest. Women deserve better than this. Hell, *doctors* deserve better than a single treatment option to give to women who are concerned about sudden month-to-month changes in their cycles. I believe that this is unacceptable.

Fundamentally, knowing your own body and its rhythms is a very empowering way to take control of your life for the better. As we will discover together in the following chapter, a lot of medical practice relies on you being kept in the dark about your own body.

I promise we'll get back to the hair vitamins in a minute.

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Sidebar: Sex bias in medical science

Nearly everything written, produced, speculated upon, and studied in terms of health, is either explicitly written, produced, speculated upon, and/or studied for the betterment of men's health. If you are a man, this system works great. You can be assured almost one hundred percent that the supplements, medication, medical advice, and nutrition guidelines you receive are correct, and if followed, will benefit you. You can also likely be assured that the vast majority of mainstream historical research in the fields of medicine and nutrition were created for you, and by people who had your best interests (i.e. health and wellbeing) in mind.

Unfortunately, some of us are not, in fact, men.

Women's health and wellbeing has been historically ignored. This is not some epic statement of feminist intent. This is an observable fact. Think about how many women you know who believe that their menstrual cycle consists solely of bleeding roughly once a month. Think of all the women you know who think it is beneficial to lose weight during the three months leading up to conception. Think of all the women you know who believe that regular mammograms and pap smears are the be-all-end-all of women's healthcare. It is not (or, at least, it *should not be*) a covert attempt at admitting to being a feminist to point out that not one of these beliefs is correct.

Women understanding their own bodies benefits both sexes. Not only could there be less 'distinctly female' problems that doctors are mystified by and unable to solve (see: PCOS, endometriosis, female-specific and hormone-related anxiety/depression/stress, female chronic pain, *et cetera*), women could be better able to pinpoint *their own* problems, taking better control over their own lives, their own fertility, and their own general wellbeing *without* the overreliance on the modern medical industry.

As discussed in the rest of this chapter, I seriously believe birth control is harmful to the female body. The argument could be made that it serves an important purpose, of course, as many women would like to participate in sexual intercourse and refrain from becoming pregnant. Whether or not these actions align with your worldview is irrelevant, there are people, and will likely always be people, for whom this is the case<sup>4</sup>. My personal belief is that these people deserve better than what they've been given, as well as that women deserve better care than having birth control be used as a cure all for every female disorder.

This is all to say, as has been said an innumerable amount of times before, that women need to advocate for themselves in the doctor's office, and in front of the medical institution at large. Without performing a grand literature search, most people know of at least one woman who has suffered an unjust amount at the hands of a doctor or other medical professional who did not believe her when she said something was wrong, and if you don't, you do now:

When I was about two years into my stint on birth control, I began having horrible pain in both legs, toward my calves, intermittently, and it would not cease. Naturally, blood clots being one of the very few side effects that the doctors did bother to tell me about when I was prescribed these pills in the first place, my immediate assumption was that I had a deep vein thrombosis and that I was going to die horribly, a mere casualty in the quest to make women's healthcare accessible, or whatever. I went directly to the doctor, and declared that I thought I had a deep vein thrombosis, anxious to see what kind of tests were going to be run.

He felt my calves. He asked me a few questions. We chatted while he pulled out a measuring tape and, upon seeing that my calves were within the magical numerical range that his grad school textbooks assured him they would be, he declared me free of blood clots.

No tests, no talk of switching off the pill, no nothing. I repeated this exact song and dance with two other doctors, feeling as though I was reaching a breaking point in my sanity. Nobody, I felt, was taking me seriously.

After the third doctor told me that he did not think I had any blood clots in either of my legs, I stopped him. "What do you think is causing this, then? Blood clots or no blood clots, I am in a lot of pain. It's affecting my gait, it's affecting my sleep, it's certainly affecting my mood, since I'm worried about it 24/7, what is going on?"

He blinked at me.

"I don't know. Maybe we can run some tests, or something."

### "I don't know. Maybe we can run some tests, or something."

<sup>&</sup>lt;sup>4</sup> The last thing we need is more unwilling and unfit parents. Let them use contraception, because the other thing you are never gonna control is the behaviour of horny people. Let this portion of the work speak not to what should be, but to what is.

I was infuriated. "I have been asking doctors to run tests this entire time. All I want is for you to run a test to figure out what the hell is going on here. Why was running tests the last ditch effort for me? Is this how you typically run your practice? What the hell is the matter with you?" All things I would have liked to say. What I instead said was "Yes, please."

Thankfully, I did not have any blood clots in my legs. What I did have was an absolutely devastating magnesium deficiency that was causing major muscle cramps and fueling my sleep issues. It would have been very easy to run that test *first*, and save me the weeks of worry, pain, and sleeplessness, for something that would, in the end, be cured with a bottle of dollar store supplement pills.

It is infuriating to me that it took so long for such a simple solution. Particularly since the people who made it take that long were the only ones licensed to help me.

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It saddens me to no end that this is the reality that my daughters will grow up in. I believe that they deserve better than to be thrown off their natural hormonal rhythm and ignored when they have a genuine concern. I believe the same of all women, regardless of their personal stance on birth control to begin with. I do not believe that we are making good progress on women's healthcare and wellbeing until we come up with real solutions to women's issues, and women's sickness. It saddens me that this is even an issue.

#### TWO: BREAKFAST OR; HOW I LEARNED TO FEED MYSELF

I was a skinny kid. I was skinny from the time I started walking until about four years ago, when I turned 19 and decided not to be underweight anymore. Then I got fat. I overindulged constantly, and ended up a healthy 35 pounds overweight. Then began the myriad of desperate attempts to lose the weight again.

Your body changes after high school. Even if you go directly to university or college after high school and maintain a very similar schedule and routine, your body will change irreversibly as you finish puberty and truly become a sexually mature adult. This happens around the late teens. It is normal, and it is necessary for your health. Do not panic and do what I did.

I tried several things. First, keto. 2019 was the keto diet's hay day, in my opinion, and it was everywhere, so it was very tough to ignore. I saw a great many people, mostly men, enjoying fantastic success while in ketosis, and desired this weight loss and apparent boost of energy for myself. However, even with strict adherence to the diet, and being past the supposed 'keto flu' window, I never seemed to obtain it. I felt greasy, sloppy, sad, and irritable for weeks. These weeks eventually melted into months, and by this time, I would menstruate and not be able to get out of bed for days. I actually *felt* my brain fog worsen over time. It was torturous. Clearly, this wasn't working for me, and I chalked it up to a failure on my part. Still though, I was patently miserable and it was beginning to wear on me. My sleep quality was beginning to falter, and that was the last straw. I quit keto immediately and went back to my 'normal' for a few weeks.

Instantly, I felt better. I still had brain fog (thank you, birth control), and I was still overweight (did not lose an ounce on keto), but I felt less horribly depressed, and I was able to sleep again. Ah, the joys of strawberries.

My next venture was intermittent fasting. I had seen even women enjoy the benefits of intermittent fasting, and so I thought it would be much easier for me. However, intermittent fasting was also an issue for me. Even though I was never much of a breakfast eater until that point, constantly being aware that I *couldn't* eat breakfast was torture. All I wanted to do was eat, and eventually it was the same story as before: I was tired, hungry, irritated, and I felt gross again. To top it off, I still wasn't even losing weight!

I practised intermittent fasting for a few months and when I realized it truly wasn't working, I stopped. I knew logically that fad diets do not work, but I was caught up in thinking that I could have been the exception. I was not the exception. You will not be the exception, either.

Eventually, I found a sort of pride in going to the gym. I became a bit of a gym rat, and enjoyed the ritual of it all. I would walk forty minutes to the gym, bike ten kilometres, and do a weight lifting routine. This was around the time that I had finally gotten off birth control, and I was beginning to see some of my natural energy return, as well as some of that brain fog be lifted. Still though, I felt this natural lack of discipline, and I was dumbfounded as to why. I would get three weeks in, feeling great, and crash. I would be unable to pull myself up for a few days, and then I somehow gained that discipline back. There was a pattern to this, but it was not clicking for me.

After a short while off birth control, I got very serious about tracking my menstrual cycle, and began charting it on my calendar. In doing this, I developed a sort of symbology which I still use today, to denote things like heavy flow, cramping, and ovulation, including which ovary I was feeling mittelschmerz<sup>5</sup> from. I will include this symbology as an appendix at the end of this work. Over time, I created quite the personal data set, and looking back, this was one of the smartest moves I made during this time period. As mentioned last chapter, since a woman's menstrual cycle is one of the foremost indicators of her overall health<sup>6</sup>, this type of data is invaluable. Of course, one does not have to be as thorough as this, you can achieve very similar results health-wise by simply keeping good track of which days you are bleeding and which days you are not. However, if you'd like to paint a more complete picture, without going completely off the deep end as I have, one other variable you can track is your energy level on a scale from one to ten. You don't have to do this every day, but having a few points of data for every cycle is a good idea.

Over time, I developed the cycle-tracking symbology enough that I was able to read into my mood several weeks back, as it corresponded to where I was in my cycle. The seasoned veterans among my readership will already understand where this is going, but it was at this moment that I had yet another 'eureka!' in a long series of eureka!s that would lead me to better understanding of myself: I was feeling low energy in the three to five days

<sup>&</sup>lt;sup>5</sup> From Mayo Clinic's website: Mittelschmerz is one-sided, lower abdominal pain associated with ovulation. German for "middle pain," mittelschmerz occurs midway through a menstrual cycle — about 14 days before your next menstrual period.

<sup>&</sup>lt;sup>6</sup> Though not the only one, which I know is something my potential detractors will insinuate I truly believe.

before I began menstruating, and I was doing absolutely nothing to support myself during that time.

I was losing weight, and was back within a healthier weight range for my size, but at what cost? There was an entire work week out of every month that I felt completely useless during— my precious time that I could not get back. Surely my foremothers did not also just lay around weakly during this time, there had to be something I could do.

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Sidebar: Hormone cycles and the sexes

"Okay," you protest, "but so and so male fitness influencer I watch gets up and does X every morning, and he says that I will be able to do the same if I merely have enough discipline to do so!"

You are partially right. If you have the wherewithal to push yourself through the progesterone mountain, then I applaud you. Fundamentally, though, one thing that I would love for all women to realise, both logically and intuitively, is that men and women are biologically different. Yes, you have heard this spiel nearly a thousand times, particularly in the last five years. But I mean it, and I'm serious about it.

Men have the same hormonal cycle every 24 hours. Every. Single. Day. Men wake up the same person they were the day before, hormonally speaking, every day of their lives, from puberty to death. If you're a woman, on the other hand, your cycle of hormones takes roughly 21-35 days to complete, see also: the menstrual cycle. You are not, hormonally speaking, the same person every day. Your hormones fluctuate more dramatically, and more often, than men's hormones do. What this means is that just because so and so male influencer has the discipline to post his 04:30 wakeup time on his Instagram story every morning, doesn't mean you will always feel as motivated.

This doesn't mean you outright *can not* set this as a goal for yourself and take the opportunity to foster that discipline in yourself, but it does mean that it will be *instrumentally*, *fundamentally*, *biologically way harder for you to do so, every step of the way*. If you are the type of woman who fancies herself this kind of challenge, I salute and commend you. My own mother is one such a person and never let these types of challenges stand in her way for a second. As for me, I choose to listen to my body and allow myself the rest I crave as I approach and begin menstruation.

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I ended up allowing myself to take more rest days between activities during my period, and I instantly felt better. I finished losing the weight my body was hanging on to. I was sleeping better, feeling happier, had more energy, and felt the rest of that terrible brain fog begin to lift. This, then, was part of the secret code. I needed to sync the rhythms of my life up with the rhythms of my cycle.

It is my opinion that many women would benefit from doing this. It is not always easy, granted, particularly given that we live in a society that has been built largely by men and for men. This is not necessarily a bad thing, or even evidence of a tyrannical and malicious patriarchy. I do not believe this to be the case. Particularly in a society that began with men doing most of the out-of-the-house work, it only makes sense that day to day life

should be built for them to foster success. However, I also believe in fostering a sense of harmony between the sexes. Where men benefit from resting and working on basically the same schedule, it makes perfect sense that women are able to get more done at certain times of their monthly hormone cycle and rest more at other times.

Postulation on rest and life rhythm aside, this chapter is on nutrition. Luckily for us, the same is true of nutrition and eating patterns. At certain times of the month, many women recognize that they are much hungrier, and much less able to control cravings than they otherwise would be. I think, barring some sort of health condition, or disordered eating, you should do your best to listen to those rhythms. In the previous sidebar, I talked about how men and women need different amounts of rest at different times, depending on their unique hormone cycles. The same is ultimately true for food and nutrition.

What I am not saying is for every menstruating woman to eat her weight in chocolate and deep fried foods. There is considerable evidence that this worsens cramps and contributes to estrogen dominance in a woman's cycle<sup>7</sup>, which is not something we want here. I do, however, recognize that cravings usually signal that the body is missing something, even if the thing it's missing is not what is being craved. For example, a chocolate craving can sometimes mean that the body needs magnesium, and a salt craving can sometimes mean that the body needs calcium or sodium. Not in every case, and of course if you are having cravings that simply will not go away, it's advisable to see a nutritionist, but you get the idea.

It also makes intuitive sense that as the body gets ready to produce very expensive cells (an egg) or shed a portion of an organ (menstruation) that you would feel much hungrier than normal. There has been, in recent years, the trending hashtag #feedyourbleed, where women showcase what they eat during the week leading up to versus the week of their periods. As you can imagine, the dishes of the latter camp are much larger, and more carb heavy. While I recognize the propensity to overeat, particularly in the modern day, when food is more easily available than ever before, I think this is a good thing. If you are going to overeat at any point during the month, let it be when your body is shedding blood and tissue for seven days straight. It only makes sense.

Alright, so we've got the monthly metabolism peaks and valleys in mind. What does this mean for day to day eating? First off, it's advisable to eat breakfast. It's trite, it's largely overdone, and it hearkens back to learning about the food pyramid on PBS. There is, however, a golden nugget of truth in the breakfast spiel, and that is that eating breakfast kick starts your metabolism for the day. This is important for several reasons, but particularly for women, whose metabolism begins to drop at the beginning of their cycle and continues to lower until right before ovulation. You're going to want to kickstart that and keep it going so that you feel as stable as you can during your cycle, with as few energy crashes as possible. To help this process along<sup>8</sup>, waking up your metabolism as early into your day as you can is a good idea.

<sup>&</sup>lt;sup>7</sup> Obviously estrogen is important in a woman's body, but estrogen dominance can sometimes lead to a myriad of different cancers in the long term, and irritability or mood swings in the short term. It has also been theorised to cause PCOS.

<sup>&</sup>lt;sup>8</sup> Again, barring any serious physical conditions and/or disordered eating, which, if this is even a remote concern of yours, should be addressed by a doctor ASAP.

Traditionally, this has meant waking up before the sun, cooking up a large American style breakfast, and sitting down to eat with family. If this is achievable for you, then by all means, continue. I, however, devised a different strategy.

Back to my weight loss journey: As my energy would tank every month, so too would my motivation to continue. I ended up petering out, and spending several months not doing anything of value, exercise-wise. Every so often, I would regain motivation and attempt to get back into the swing of things; heading to the gym maybe one day out of seven in the week. This, obviously, would not last, and I would be right back to where I was in the first place. Paradoxically, the more time I spent 'resting', the less energy I had over the day. To make matters worse, I started slowly gaining the weight back.

I began reading around, and ultimately what I found was that the earlier in the day your body begins metabolising calories, the better. The golden rule seemed to be that you should try to eat something within 30 minutes of waking up. I attempted, one day, to do exactly this. I cooked a big American style breakfast with eggs, bacon, and a couple of pieces of toast immediately upon waking up. As soon as I finished it, though, I felt so nauseous and bloated that I thought I was going to be sick. This was not going to work for me.

I trimmed this down to a banana and a couple of crackers on my nightstand, so that I could eat immediately upon waking up, and then whip up something more substantial a little while later. This way, I was still honouring the most important meal of the day, and not eating myself to sickness first thing in the morning. More importantly, while I still made sure to consume plenty of proteins and fats with my morning meal (usually some cheese, a couple of eggs, and a glass of milk), I started incorporating more fruit and eventually some vegetables into this breakfast feast as well. Breakfast went from torture to my favourite part of the day very quickly after this development.

I can now eat the secondary large meal as my first meal of the day, no warm-up course required. The importance and usefulness of this appetiser is not to be understated, though, particularly if you have trouble eating in the mornings. I can't describe how many people I have talked to about the importance of breakfast who defend their status quo with some version of the following:

"Oh, I'm just not hungry in the mornings."

"I could never eat that much right after waking up."

"I'd feel so sick if I ate what you ate first thing."

Here's the thing: You probably would feel sick if you went from zero calories before 1:00 pm to 1,000 calories before 9:00 am! That's actually almost guaranteed, knowing what I now know. I definitely did feel sick at first, and it wasn't an easy transition for me, either, even once I introduced my warm-up snack strategy. It took me about ten days to feel hungry upon waking up. I will note, though, that not only have the benefits been almost innumerable, and I have now lost all the weight I wanted to using this strategy, but those ten days undid almost fifteen years of terrible eating habits. If you asked me ten years ago, or even five years ago, if I would ever be a so-called "breakfast person", I probably would have responded similarly to the above protests.

This is all to say that it is neither impossible, nor even really all that hard, to go from 'not being able to eat before the mid afternoon' to a more natural eating rhythm. I believe that with only a very small routine shift, it is possible to eat three meals a day, beginning with breakfast at a reasonable hour.

. . .

Sidebar: Eating more to lose weight

Truly it does seem counter-intuitive. I will say from experience that I lost more weight eating 2700-3000 calories a day than I did eating 1800. Granted, I was working out consistently while I was eating this much (I eat around 2100 these days), but the fact of the matter is that I had the energy to do so while I was eating these big meals. I wasn't dwindling off in the middle of the day, needing a 2:00 pm nap to make it through to dinner time.

I believe it has something to do with the starvation mindset that happens when our bodies aren't getting enough food. I also can't state enough that if your body gains weight when you're in the middle of healing from being underweight, like I did, that it is meant to happen and that you shouldn't fight it. Women especially get it into their heads that they should stick to 110-120 pounds for their entire lives, and this simply isn't right, or healthy. Eating correctly turns out to be extremely intuitive once you take weight out of the picture. Speaking from experience, if you can remove weight from your mind as you create a nutrition and exercise plan, it will *only* be beneficial.

. . .

Once my newfound breakfast energy was constant throughout the day, and I was working out most days of the week again, I found I felt better mentally. Naturally, doing good things for my body meant that I would feel good in return. Whodathunk. As time has gone on, I have gradually reduced the intensity and frequency of my exercise to a more sustainable level, and along with it, my food intake. One thing I have discovered that helps to keep the weight off if I am not lifting at 100% capacity 24/7 is to continue with the big breakfasts, but eat smaller meals for the rest of the day. This is still a relatively new development in my arsenal of habits, so it is tough to measure the long term consequences, but I can report so far that I feel very good and am managing to keep the weight off.

Ultimately, diet and exercise is one big trial and error game. This chapter has skimmed roughly the past five years of my experience with it, and I suspect the "perfect" system may not exist. What I have prioritised to this point is making sure I am getting the nutrients I need, on the schedule that I need them, both over the course of the day and of the month. I have come to know my body in a way that I had not up until this point in time, and I am very thankful that I am now standing on the other side of this experience with the knowledge that I have. Figuring out how this all shakes out for you will inevitably look far different than it has looked for me. It is ultimately worth the time you spend.

#### THREE: MICRONUTRIENTS!

A natural consequence of my particular neuroses when it comes to health and nutrition is that I love learning little facts that spin up into a web of things that help me understand a very complex topic. You will notice that we are two chapters into this thing and I still haven't even touched the damn hair vitamins since the introduction. All things for a reason, young grasshopper.

Turns out, all this shit is interconnected!

The idea that health can be 'supercharged' or that somehow your body can be working better, or faster than before, is a central tenet of the sort of advertising which tricks people into spending \$150 on hair vitamins. It is *incredibly* convincing. Since we are taught from a young age<sup>9</sup> that there are lots and lots of vitamins that we eat in our food, and that each vitamin has a job, it makes extremely intuitive sense that taking more of a certain vitamin would mean that we get more of a certain outcome.

Not so! Like we covered together in the introduction, certain vitamins just don't work that way. The ones that do often work in ways that are counter-intuitive. Before we go any further, let's cover the basics of each vitamin:

- Vitamin A: Vision, growth/cell division, reproduction and immunity. Also has antioxidant properties.
- Vitamin B: Brain function, cell metabolism, energy level. The B group of vitamins help a variety of different enzymes in the body do their jobs.
- Vitamin C: Antioxidant, helps protect the body against free radical damage. Also affects blood pressure, iron absorption for blood health, and notably the growth and repair of all body tissues.
- Vitamin D: Fat soluble, vital for bone health— helps the body retain calcium and phosphorus. Also helps to facilitate normal immune function.
- Vitamin E: Fat soluble antioxidant. Vision, reproduction, blood, brain, and skin.
- Vitamin K: Helps to make various proteins that are essential for blood clotting.

If you're anything like me and you got a regular public school health education, this is as far as they taught you. "Get all your vitamins (and if you were lucky, they mentioned minerals, but neglected to tell you which ones and why)!" they'd proclaim. I knew there were a handful of letter-marked vitamins, but nothing beyond this.

You'll notice in this section as well as the introduction that a distinction has been made between fat soluble and water soluble vitamins. This is an important part of micronutrient health, and is a part of the reason Vitamin B7 (or, biotin) does not work the way it's advertised as working.

<sup>&</sup>lt;sup>9</sup> Or, I was, anyway. I hope I am not the only one who spent several years in a public school health class learning about the food pyramid, or that Vitamin C is responsible for making me feel better when I'm sick.

. . .

Sidebar: Know your roots

The above is a basic, modern understanding of vitamins. You can get fairly far with this knowledge alone, but I think vitamin history is absolutely fascinating, so here is the rundown:

Scientists, at one point in the early 1900s, realised that there was an essential, fat soluble nutrient in butter. They called this Vitamin A. Concurrently, they realized that there was an additional essential nutrient, this one water soluble, in milk, which they called Vitamin B. They began naming all of the compounds which "...are essential for normal growth and nutrition and are required in small quantities in the diet because they cannot be synthesised by the body."<sup>10</sup>

If you recall in the introduction, biotin, or B7, was once called Vitamin H before the scientific community realized it was a part of the B complex of vitamins. In fact, they made a number of discoveries like this. In order, the vitamins are, and became:

- Vitamin A: retinol. Retinol stayed this way, and is commercially available by this name for skin care.
- Vitamin B: Originally thought to be just one vitamin, later it turned out that there are a whole whack of these:
  - Vitamin B1, or thiamine;
  - Vitamin B2, or riboflavin;
  - Vitamin B3, or niacin/niacinamide,
  - Vitamin B4, or adenine (turns out, our body can synthesise this, so it no longer qualifies as a vitamin, and has been removed from the official categorization!);
  - Vitamin B5, or pantothenic acid:
  - Vitamin B6, or pyridoxine/pyridoxal/pyridoxamine;
  - Vitamin B7, or biotin;
  - Vitamin B8, adenylic acid (similar story to B4);
  - Vitamin B9, or folic acid;
  - And Vitamin B12, or cyanocobalamin.
- Vitamin C: ascorbic acid;
- Vitamin D: several of these:
  - Vitamin D1, or calcitriol, which is actually fairly unimportant as far as supplementation or nutrition goes, it is synthesised in the kidneys and liver;
  - Vitamin D2, ergocalciferol;
  - Vitamin D3, cholecalciferol (if you live in Canada, you'll be familiar with this one, as it is added to all of our dairy).
- Vitamin E: alpha-tocopherol;
- Vitamin F: alpha-linoleic and linoleic acid (it turns out that these are actually fatty acids, and needed in the body in amount that are too great to continue being classified as a vitamin);
- Vitamin G: riboflavin, or B2;
- Vitamin H: biotin, or B7;

<sup>10</sup> Definition from Oxford English Dictionary.

- Vitamin I: for some reason, there is no historical record of a Vitamin I ever existing. This is a mystery I have yet to get to the bottom of.
- Vitamin J: choline. Commonly associated with the Vitamin B complex, although it is neither a vitamin nor a mineral. The body makes certain amounts of choline.
- Vitamin K: two notable types;
  - Vitamin K1, or phylloquinone;
  - Vitamin K2, or menadione.
  - \*\* The body also makes a form of vitamin K, which accounts for half the daily value.

And some others. Most of which can be found in the table linked in the footnote<sup>11</sup>. I think it's interesting to note the different switches and discoveries that have been made with regards to vitamins, especially those vitamins which eventually found their way as a part of the Vitamin B family. There are many other vitamins that have started out classified as their own item and ended up a part of this complex, and this goes to show that science, even if we're sure at the time, is never 'settled'. Keep your eye out for absolutist propaganda, always.

. . .

Your body can use a certain amount of vitamins right away, but it must do something with the extras. It either removes them, or stores them. The issue is, extra vitamin content is stored in the fat. This means that only fat soluble vitamins can be 'stored', or taken at one time and used by the body later. The good news is that most vitamins (Vitamins A, D, E, and K) are fat soluble. The bad news is that all of the water soluble vitamins must be taken continuously. There are seven water soluble vitamins, and these include all of the B vitamins, and Vitamin C.

Further bad news is that these water soluble vitamin supplements are notoriously poorly absorbed by the human body, which means that those who seek an easy way out of eating their fruits and vegetables are sorely out of luck. The best way to make sure the body has easy, consistent access to these water soluble vitamins is to consistently eat them in high quality foods like fruit and vegetables.

Even those vitamins which are stored away in the fat of the body must be continually taken through high quality food. Essentially the story here is you get out what you put in. If you are only consuming high quality Vitamin A through supplements, most of which is destroyed by the digestion process anyway, you will reap a low quality result in return.

Basically what I'm saying is supplementation is crap. Don't do it if you can help it<sup>12</sup>. I think most people should try for a nutrient blood test at least at the beginning of their health and wellness journey, to see where they could be improving, and barring any major deficiencies, should strive to eat their nutrients.

<sup>&</sup>lt;sup>11</sup> <a href="https://www.health.harvard.edu/staying-healthy/listing\_of\_vitamins">https://www.health.harvard.edu/staying-healthy/listing\_of\_vitamins</a>. I will also include this table as Appendix 3.

<sup>&</sup>lt;sup>12</sup> By this, I mean that for the average human (i.e. barring disordered eating or medical condition) you should strive to get all of your nutrients by food and not by pills. Nevertheless, I'm not your doctor, so talk to him about this if you have questions.

While high quality water soluble nutrients can be found in fruit and vegetables<sup>13</sup>, most fat soluble nutrients (the ones our body can use right away, anyway) are found in animal products like meat, cheese, and eggs. You should be eating plenty of meat and dairy, preferably locally sourced, and preferably at least grass fed, if not grass fed and finished<sup>14</sup> when it comes to your meat. I also *always* recommend whole fat milk, especially to women, and *especially* to those women who want to breastfeed. Your body will thank you for the nutrients

...

Sidebar: I'm vegan, what do you recommend? I recommend quitting veganism.

. . .

One thing I think it would be remiss of me to omit is that if you *are* planning on supplementing these fat soluble vitamins, you must be very careful. Since the body stores them, it can be quite dangerous if someone starts taking a lot of them all at once. What I mean to say is that, although it is rare, you can overdose on the fat soluble vitamins. Vitamin D is the most likely culprit, since it is in so many things. Please be careful.

Certain vitamins/minerals/trace nutritional substances need other vitamins to function. There are too many of these interactions to list, but an example is that Vitamin K helps the body to synthesise Vitamin D, and Vitamin C is critical to helping the body synthesise the protein collagen. The best course of action as far as all of these nutrients are concerned is to eat a varied diet of many different types of food, and to optimise the body to actually absorb it all. We'll get to gut health in just a moment, but for now, the point I want to hammer into your head is that supplementation is not the way to do this, especially when there is such a wide variety of lovely food to enjoy instead.

Probably my favourite part of the study of micronutrients is looking at minerals. Trace minerals come from the soil, and include things like selenium, copper, zinc<sup>15</sup>, and some others. You do need these, and their absence will sneak up on you if you don't have them. Unfortunately, trace minerals nearly always come from the soil that fruits and vegetables are grown in, and modern farming practices have almost completely depleted these nutrients. This presents a significant problem, seeing as minerals will not appear in food that is not grown in places that do not have minerals. Luckily, there is a natural solution: the ocean!

Many trace minerals are found in seafood and sea greens, particularly iodine. If you don't like seafood, I empathise, and present to you my personal cure-all solution: Celtic Sea salt! Celtic Sea salt contains all of the trace minerals the body needs, including all the crucial electrolytes such as sodium, potassium, and magnesium. Due to the fact that this salt is much

<sup>&</sup>lt;sup>13</sup> With the exception of some that are found in meats I know I know I KNOW. You're very smart and I'm glad you pointed out my fatal error.

<sup>&</sup>lt;sup>14</sup> I eat grass fed and grain-finished beef, because I'm from Alberta and that is what's produced here due to (lack of) grass availability over our winters. Nobody's coming to kill you if you do it this way, and I personally think it tastes better anyway. Yum, barley.

<sup>&</sup>lt;sup>15</sup> Less important for women, *vitally* important for men. Same with copper.

richer in sodium, it also tastes saltier, which means you need less of it overall to make a dish taste the same. My solution to the trace mineral problem has been to switch from regular white sea salt<sup>16</sup> to Celtic Sea salt in my dishes, and I have felt a noticeable impact on the rest of my brain fog as well as my concentration. This is definitely part of an entire holistic system, again, you will not find any miracle cures in the world of nutrition, but the trace mineral intake is a critical part of the picture not to be underestimated.

Finally, maybe the most important classification of nutrients: Your body is constantly producing particles called free radicals, which are atoms containing at least one unpaired valence electron. These particles are incredibly unstable, and most of them are extremely chemically reactive. Needless to say, left unchecked, they will absolutely kill you. Free radicals can cause illnesses like heart disease and diabetes, cell damage, cancer, and are a huge part of the reason we age. If there are too many free radicals in your body, you can enter a state called oxidative stress, which basically means that your DNA (fairly important, that) and other cells in your body can become so damaged that they no longer function as they should. In extreme cases, oxidative stress can cause cell death<sup>17</sup>.

Luckily for you, and all of your cells, there are several chemical compounds, known under the umbrella term 'antioxidants' which fight free radicals by giving up some of their electrons, which effectively neutralises the free radicals. Your body naturally generates a couple of types of antioxidants, but to aid these in the fight against free radicals, there are some that you must take in from your food. As aforementioned, these are Vitamins C&E. These two vitamins are absolutely critical to life, and without them, your body will begin to show signs of oxidative stress such as fatigue, memory loss and brain fog, muscle and joint pain, headaches, and many different types of digestive disorders. Oxidative stress is, to say the very least, unpleasant, and I beseech you to do what you can for yourself to avoid this.

Another lucky thing about antioxidants is that they're present in just about everything you eat. Animals and plants also deal with free radicals, and they too have developed their own antioxidants, which they will share with you when you eat them. A good rule of thumb is that fatty animal products and deeply or brightly coloured fruits and vegetables have all kinds of antioxidants that will benefit you. These are called flavonoids.

This chapter has been very general in its nutrition advice, and for good reason. Different people will need different amounts of each vitamin depending on who they are and what their day to day looks like. Men and women will need different amounts of each nutrient depending on a variety of factors. Women will need different amounts of certain nutrients day to day as their cycle progresses, particularly when menstruating, to account for the nutrients lost through bleeding. It's important to do your own research, and potentially to talk to a nutritionist if you're experiencing symptoms of deficiency. Ultimately, the best way to get good nutrition is to eat an adequate amount of a variety of things. As we'll see in the next chapter, this same tenet is equally critical to the absorption of nutrients.

<sup>&</sup>lt;sup>16</sup> Which, if supply of Celtic Sea salt is an issue, will do just fine. You may just have to consume some fish and other seafood to bridge the gap. Cow's milk and eggs also have many trace minerals.

<sup>17</sup> Not good!

#### FOUR: FROM POINT A TO POINT B, OR, THE GUT

In order to make any use of the micronutrients we can now painstakingly categorise, our guts must be able to absorb the nutrients we give them. In order to do this, good gut health is a must. This is my newest area of exploration, and so this is a short section detailing what I myself do to maintain good gut health.

Many people will recommend kombucha, or sauerkraut, or yogurt, or kefir, when gut health comes up. This is because each of these is what is known as a probiotic. Probiotics contain cultures of bacteria which aid digestion and diversification of gut flora. These are fantastic options, but can sometimes cause stomach upset for people who are not used to them. When I began my crusade for good gut health, I thought if I drank enough kombucha that it would simply *happen*. As you may be able to guess if you've read this far, no. It will not happen. Repeat after me: there are no miracle cures in health and wellbeing. All together now:

# There are no miracle cures in health and wellbeing.

Anyone who says anything different is likely trying to sell you hair vitamins.

That being said, still do eat probiotic foods. They are good for you and they will help maintain good gut health and immunity. They serve an important function, that I often feel has been glossed over and forgotten by the medical establishment<sup>18</sup> unjustly. Not to mention that these foods serve other purposes than just their probiotic purpose.

Working in the diet in tandem with, and not instead of, these wonderful probiotic foods, should be a class of foods called prebiotics. Prebiotics are found in almost all vegetable and fruit matter. If a probiotic is like introducing new, healthy cows to a farm to improve overall herd strength, prebiotics are like good quality hay and other feed, which the cows will eat to become individually healthier. The bacteria already present in your gut need prebiotics, or they will starve and die. If the native bacteria cultures begin to die, other, less desirable cultures will take their place.

This outcome is probably fairly unlikely. Similar to humans, bacteria can survive a fairly long time on a terrible diet. So, if you're only eating processed grocery store food and drive thru combos, not to worry! You will not die. You're just unlikely to feel very good, and the same goes for your gut bacteria. Let's fix that, though, shall we?

My formula is the following: I try to eat ten half cup servings of plant matter a day, or five cups worth. This will seem like a lot at first, and if you're worried about weight gain it is helpful to remember that most plants are not very calorically dense at all. Within these ten servings, I try to fit about 30 plant products per day. Some days, I hit a little under that limit,

<sup>&</sup>lt;sup>18</sup> Overt culture-wide fear of bacteria in general plays a generous part in this. You'll notice I am not differentiating between 'good' and 'bad' bacteria like many sources on gut health will? That's because I refuse to infantilize the subject any further than it already has been. Bacteria have no morality. Consume food with nutrition; sometimes this nutrition happens to be in the form of bacteria. Get over it.

often I go way above it. Realistically, anywhere from 25-35 plant products a day will give very good results.

That very likely sounds like *a lot* of vegetables. However, when I say 'plant products', I don't just mean raw fruits and vegetables on a plate<sup>19</sup>. That could get very boring for someone who's not used to it. Instead, I mean anything that is plant-based. This includes:

- Raw or cooked fruits and vegetables;
- Legumes and root vegetables, including potatoes;
- Fermented vegetables and teas (see: sauerkraut and kombucha);
- Herbs, spices, and other plant based seasonings (roots, leaves, stems, etc!);
- Herbal teas (each herb counts as one!);
- Coffee (black or otherwise, it's still made from beans);
- Whole grain products;
- Nuts, seeds, and anything of this nature;
- And dark chocolate (at least 70%).

I'm likely even missing some things in this list. It sounds very intimidating on its face, five cups of plant material per day is something I had to work up to, and it took me a couple of weeks to get good at counting all of this plant matter, but it really has helped! I almost never feel bloated these days, and I will say that as long as I take care to get as much sleep as I feel like I need, I have no brain fog anymore<sup>20</sup>. I do think it's worth it to pay attention to your prebiotic intake. I do think it's worth it to prioritise plant matter in a diet, even while eating plenty of high quality animal products as well. I think these two schools of thought can and should coexist, and even if my system doesn't sound appealing to you, that it's worth looking into regardless.

<sup>&</sup>lt;sup>19</sup> Although, those who know me know that I do a lot of this anyway. It comes down to personal preference. <sup>20</sup> There is a connection between the gut and the brain that is noted in much scientific literature. I will leave some reading recommendations in Appendix 1.

#### CONCLUSION: ...BIOTIN SUPPLEMENTS?!

Oh yeah, those. Look, nothing can make your hair grow faster than it's already going to. It's just not going to happen the way you want it to. Over the course of this exploration I've learned that certain things take time. Nothing happens overnight, and there are no miracle cures in health and wellness. I hope I've made myself clear.

Chronologically, the beginning of this work was over five years ago now. My hair has reached waist length, I have a decently thick braid, although I'm not quite getting it stuck in my waistband just yet. Soon, though. Certainly something I've taken in as I've been on this journey is the absolutely priceless value of patience. I did not grow 14 inches of hair overnight, I did not heal myself from the damage and nutrient deficiencies caused by hormonal birth control overnight, I did not heal my gut overnight. I also didn't have an overnight revelation that made me truly believe there was a short term cure for these things. My mindset change, same as my healing and hair growth, took time. It took maturing. Beginning this process, I was almost 18, freshly out of a miserable relationship, underweight, unhappy, and unhealthy. I was sold a lie that there was a miracle cure to one thing I really wanted, and I wholly bought into it. The same thing happened as a teenager, when I was put on birth control, and again the same thing happened last year, when I drank too much kombucha and nearly shit my pants in an Edmonton Walmart, because I thought I could speedrun healing my gut with probiotics. If you take nothing else from what has been said here, take away that there are no miracle cures in health and wellness. You need to take the time to know your own ovulatory cycle, lest you use birth control to mask the painful symptoms you're having instead of searching for a cure. You need to take the time to think through how you're feeding your body instead of rushing through fad diets to try and lose your freshman 15 (or 50, as the case may be). You need to take the time to think about how your lifestyle impacts you, as opposed to where you could be, or where your goal is, before you rush into something potentially damaging to your health.

I know it's tough, particularly as a young woman, to sift through health and wellness advice. I know it's annoying as hell to have people give you their unwanted advice and expect you to take it as gospel, even if it ends up being really good advice! There is a part of us that is determined to make this *our own* body on *our* terms, in part, I think, because there is a large portion of society who makes it their mission to tell us what we should be doing with our bodies. That being said, if you find yourself rolling your eyes more often than not at this advice, or if you think I'm a crotchety old woman at the ripe age of 23 telling you to eat more greens, go with your gut feeling. There's no shame in that, ever.

It is my hope, however, that you at least feel empowered to take a break from the onslaught of so-called miracle cures and truly figure out what is going to work for you, on your own terms, at your own pace.

I wish you good luck and good health.