"The book my patients have been waiting for."

Dr Peta Wright, gynecologist and women's health advocate

hormone repair manual

every woman's guide to healthy hormones after 40

navigate and relieve symptoms of perimenopause and menopause

LARA BRIDEN ND

Contents

Introduction

Welcome to *Hormone Repair Manual*, your guide to healthy hormones after 40.

If you read my first book *Period Repair Manual*, you know how passionate I am about women's hormones and periods. In fact, you could say I'm a cheerleader for women's hormones and all the benefits that come from natural menstrual cycles.

With this book, I'm equally passionate about the final few years of periods called *perimenopause* and the years after periods called *menopause*. I didn't include the word perimenopause or menopause in the title because I didn't want you to think, "Oh, this book doesn't apply to me," when in fact, if you're 40 (or even close to 40), then it very much *does* apply to you.

Why am I so passionate about perimenopause and menopause?

First, because it's happening to me. I'm 50 at the time of writing and have started having long gaps between periods and forgetting where I parked my car. I'm also discovering a new feeling of cheeky independence, which I'll explain more in Chapter 2 and which I had heard about from patients but never really understood until it happened to me.

The second reason I'm passionate about perimenopause and menopause is that I'm eager to shine a light on how normal and

okay it is. I'm doing so in response to an unofficial survey I conducted on my social media pages where I asked, "Are you afraid of menopause?" and 64 percent of women responded, "Yes." In the comments, they described being frightened of symptoms, which is understandable, but also of being frightened of the stigma of menopause, which is also understandable but sad. How can society still attach such stigma to a normal, natural process that happens to 51 percent of the population?

We'll tackle stigma in Chapter 2, where I'll offer what I hope are a few new angles on the whole thing. I'll also invite you to view menopause as a separate process from aging, which is accurate because, although perimenopause happens alongside aging, it's actually an independent process that is more akin to *second puberty*. We'll explore the concept of second puberty in Chapters 1, 2, and 4, and I'll present the argument that, from an evolutionary perspective, menopause may actually have evolved as a beneficial *adaptation* to give rise to a longer human lifespan. Viewing menopause as a beneficial adaptation is just one of several ways to find *meaning* in the process and see beyond the common narrative that menopause is just an accident of living too long.

How to use this book

The first four chapters are all about understanding the process of perimenopause, both emotionally and biologically, including a discussion of the importance of regular ovulation. If it seems strange to learn about ovulation just as you're about to stop ovulating forever, consider that "stopping ovulation" is the cause of most symptoms that might arise. To understand symptoms and how to treat them, you need to start by understanding ovulation.

The final six chapters of the book are all about treatment. Drawing on the latest research and my own twenty-five years' working with patients, I'll provide nutritional and hormonal treatment strategies for symptoms ranging from heavy periods to weight gain to anxiety and night sweats. We'll begin with a *General maintenance chapter* about the nervous system and diet

and then move into a full discussion of hormone therapy before surveying each symptom individually and how to treat them with both conventional and natural treatment options.

Start by reading the book from cover to cover because there are essential topics nestled within each chapter. For example, Chapters 5 and 8 provide a detailed description of *insulin resistance* or prediabetes, which, for reasons that will become clear, is crucial for almost every part of the perimenopause and menopause story. Chapter 7, the "brain chapter," is where you'll learn about hot flashes, and Chapter 10 is where we'll discuss long-term concerns such as vaginal dryness, cognition, and bone health.

Special boxes

Throughout this book, you'll encounter definitions, tips, patient stories, and special topics.

definition

Definition boxes provide simple explanations for any technical words. You can also find these explanations in the *Glossary* at the end of the book.

Tips are extra bits of information that you may find helpful.

Lara—Periods getting further apart

Patient stories are fictionalized stories based on my real patients, with names, and some details changed.

Special topic: Explore in more detail

Special topics to provide you with extra, in-depth information.

How to speak with your doctor sections

At times, you'll need your doctor's help, either for diagnosis or treatment, and I want your doctor-patient conversations to be as productive as possible. Towards that goal, I have provided short *How to speak with your doctor* sections, which are lists of statements and questions to assist in communication about topics such as *How to speak with your doctor about progesterone for heavy bleeding*.

Are the recommendations evidence-based?

For all the diet, lifestyle, and supplement recommendations, I have provided a reference to a scientific study whenever possible. That amounts to more than 350 studies to support many of my recommendations. When I have not provided a reference, it's because research was not yet published on that topic, such as for some of the herbal medicines, as well as for concepts like the role of mast cell activation and histamine in perimenopausal mood symptoms. I hope that scientists will one day study those treatments and concepts, but in the meantime, I want you to have the benefit of them. If that means being ahead of the curve of scientific inquiry, then so be it.

More importantly, my recommendations are based on the success of thousands of my patients. Most are simple and safe to try, and when there are precautions, I list them. I also ask that you speak with your doctor or pharmacist about possible interactions with your medical conditions or medications or if you are pregnant or breastfeeding. Always cross-check the labels or packaging for precautions and dosage instructions. To assist you, I've provided a list of suggested supplement brands in the *Resources* section, but I have not been paid to mention any product or brand name. At the end of the day, you should choose the supplement that is available to you and is not too expensive.

Chapter 6 is a big discussion of menopausal hormone therapy and is as up to date as I could make it, given the evidence is constantly changing from "hormones are good for prevention" to

"use them only for symptom relief" and back again. My observation is that estrogen and progesterone therapy can be helpful for some things, so I'll survey the latest research and consensus and share the experiences of my own patients.

In the book in general and the hormone therapy chapter in particular, I have drawn on the research and writing of my colleague Professor Jerilynn C. Prior, who is a Canadian endocrinology professor and the author of the perimenopause book *Estrogen's Storm Season: stories of perimenopause*. Professor Prior is a huge advocate of the benefits of progesterone treatment, either as a companion to estrogen or on its own, and you'll encounter her quotes and protocols throughout the book.

My education and background

My first degree was a Bachelor of Science (BSc) from the University of Calgary, where I published my honors thesis as a scientific paper on the foraging behavior of male and female bats. That work in evolutionary biology was the beginning of my love of science and the natural world and has informed the way I work with patients. For example, I view the body as a logical, responsive system that knows what to do when it's given the right support with nutrition and natural treatments.

After my biology degree, I went on to qualify as a naturopathic doctor (ND) from the Canadian College of Naturopathic Medicine (CCNM) in Toronto, Canada. It's one of seven accredited colleges of naturopathic medicine in North America: two in Canada and five in the United States. The first two years of training are similar to conventional medical programs, while the final two years provide hundreds of hours of training in nutritional and herbal medicine, as well as clinical training in an outpatient clinic. After graduating in 1997 under my maiden name, Lara Grinevitch, I was certified by the Naturopathic Physicians Licensing Examinations (NPLEX), which are professional licensing exams administered by the North American Board of Naturopathic Examiners (NABNE).

My first five years of practice were in Pincher Creek, Alberta,

Canada, in the 1990s, which was an interesting time to be a natural doctor because even basic things like probiotics were viewed as strange. “Good bacteria?” said one colleague. “How ridiculous!” The 1990s were also a somewhat scary time for women’s health. Many of my patients were being treated with high-dose birth control pills, routine hysterectomies, and an old-style of hormone therapy called Premarin®. As I strove to find better solutions for my patients, I discovered that natural treatments yielded even better results than I had been taught to expect. For example, diet and supplements worked for many symptoms such as hot flashes, and bioidentical hormone therapy (also called body-identical) was a viable and safe alternative to conventional hormone replacement therapy or HRT. This treatment is now known as menopausal hormone therapy or MHT.

Fast-forward twenty-five years, and bioidentical hormone therapy has become the standard hormone therapy recommended in most conventional settings, such as in your doctor’s office. The switch to bioidentical treatment took longer than I expected, but it did finally happen and means you now have easy access to “natural hormones” as one of several options your doctor might routinely prescribe. To be sure you do get the safer and more natural type of hormone therapy, see the full discussion in Chapter 6.

After practicing in rural Alberta, I moved to Sydney, Australia, where I had consulting rooms for nearly twenty years before finally settling in Christchurch, New Zealand. I currently live in New Zealand but commute to Australia to deliver presentations and occasionally touch base with my Sydney patients.

I’m a member of the Scientific Advisory Council for the Centre for Menstrual Cycle and Ovulation Research, founded by Professor Prior in 2002 at the University of British Columbia, and the Endometriosis Special Interest Group (ESIG) of Endometriosis New Zealand. I also sit on the editorial board of *Vital Link*, the official journal of naturopathic medicine of the Canadian Association of Naturopathic Doctors.

To my thousands of patients over the years, thank you for entrusting me with your health and stories. I dedicate this book to you.

Lara Briden

Part One

Understanding perimenopause and menopause

Nothing in life is to be feared, it
is only to be understood.
Now is the time to understand
more, so that we may fear less.

~ Marie Curie ~

Chapter 1

Hormone revolution: why everything is different after second puberty

If you've picked up this book, it's because you feel that something is changing with your body and maybe with your life.

You're not imagining things. By your late thirties or early forties, something *is* changing with your body and, more particularly, with your brain, and it can feel bewildering, frustrating, and liberating all at the same time. The change is not a single event but a process called perimenopause, which is the two to twelve years *before* your periods stop. Perimenopause is different from menopause, which is the life phase that begins one year after your last period. This book is about both the process of perimenopause and the life phase of menopause, which together could comprise more than four decades. What do you need to understand about this important new chapter in your life?

First, understand that symptoms (if you experience them) are likely to be temporary. Not *all* perimenopausal symptoms are

temporary, but many are, and knowing that will prevent you from thinking, "Oh, my goodness, this is how I'm always going to be now." It's not how you're always going to be; this too shall pass.

Next, understand that perimenopause is not just chaotic "hormonal fluctuation," but a *sequence of events*, beginning with low progesterone paired with temporarily high estrogen and concluding with low estrogen and some significant changes to insulin metabolism. Perceiving the process as a sequence of describable events will help you to find the right treatment.

Finally, know that perimenopause and the early years of menopause are a *critical window* for health, and that's true even if you don't have symptoms. By critical window, I mean a *sensitive period* or inflection point, during which time small health problems could, if not addressed, amplify into larger and more permanent health problems later in life. The good thing about an inflection point is it also gives you a *window of opportunity* to make small changes that could pay huge dividends for your future health.

So there we have it:

- Many symptoms are temporary.
- Perimenopause is a sequence of events.
- Perimenopause and the first couple of years of menopause are a *critical window* for health.

Let's now explore those concepts in detail.

Perimenopause is second puberty and is temporary

Perimenopause is not about aging. If you're 35 or even younger, then you're clearly still young. And even if you're 50, perimenopause is happening alongside aging but is not *caused* by aging. Instead, perimenopause is a sequence of hormonal events and changes that are more akin to puberty or second puberty. Consider the following representation of lifetime estrogen (estradiol) and progesterone, depicted by endocrinology

professor Jerilynn C. Prior.

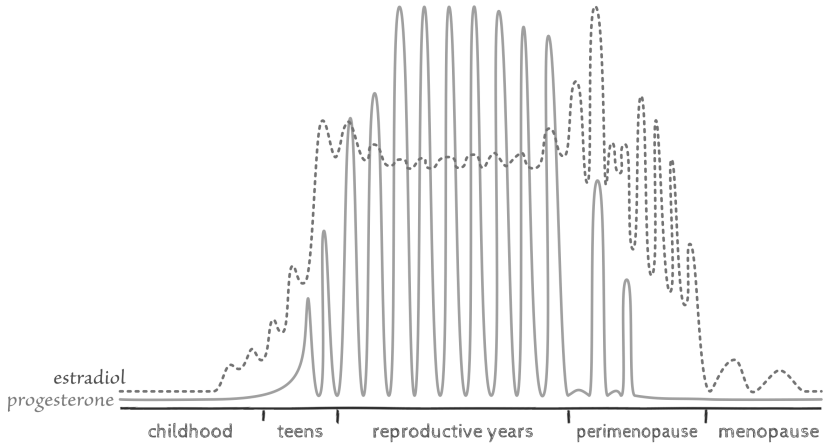

image 1 — hormones through the lifespan, adapted from JC Prior, "Perimenopause lost—reframing the end of menstruation."

Estrogen is low in childhood and then high and fluctuating during the teen years, especially in comparison to progesterone, the "period-lightening hormone," which is low until regular cycles become established. High estrogen paired with low progesterone occurs in both first and second puberty, with progesterone being *slowly gained* in first puberty and *slowly lost* in second puberty. High estrogen paired with low progesterone is why you may have encountered heavy periods as a teen and, unfortunately, why you could encounter them again in your forties. Eventually, with second puberty, you will also lose estrogen and arrive at the stable low estrogen of menopause that is similar to childhood levels.

The process of hormonal change could last ten years, which means symptoms could last ten years but won't last forever. Therefore, you'll want to think twice before accepting as permanent any diagnosis such as chronic fatigue or *fibromyalgia*.

fibromyalgia

Fibromyalgia is the condition of unexplained chronic widespread pain and heightened pain response to pressure. It typically affects women aged 40–60.

Professor Prior talks about perimenopausal fibromyalgia in her book *Estrogen's Storm Season* and attributes it to temporary perimenopausal sleep disturbance:

> "Because of sleep disturbance, some women get extremely achy and tired. Some of us, very early in perimenopause, are diagnosed with chronic fatigue syndrome or fibromyalgia. If we knew that our symptoms were part of perimenopause, we'd have room for hope. Instead, we're often given a diagnosis and end up going on disability, losing not only our health but also our identities and our jobs."[1]
>
> *Professor Jerilynn C Prior*

We'll speak more about fibromyalgia and how to treat it in Chapter 8.

Other symptoms of second puberty that are temporary include heavy periods, pelvic pain, sore breasts, migraines, night sweats, and most importantly: anxiety and depression. According to most research, the risk of anxiety and depression goes up with perimenopause,[2] only to come right back down again with menopause. In other words, if you can just hang on—or support yourself with the treatments provided in Chapter 7—you could reach your mid-fifties and find your mood is at least as good as when you were younger, and maybe even better. That's according to several lines of evidence, including research from the University of Melbourne, which concluded that the majority of women over 60 report feeling "pretty fantastic,"[3] and the observations of US psychologist Mary Pipher, who says that "a woman in her seventies is likely to be the happiest she's ever been."[4] Professor Prior says women need to know that "perimenopause ends in a kinder and calmer phase of life appropriately called menopause."[5]

Not every symptom in your forties can be attributed to perimenopause. Far from it. Symptoms such as pain and fatigue can instead be an indication of an underlying health problem, so you should check with your doctor. One condition to keep an eye on is thyroid disease, which exists independently of

perimenopause but can also be amplified or worsened by perimenopause—or even mistaken for perimenopause because the symptoms are so similar. We'll explore the intersection between thyroid disease and perimenopause in Chapter 8.

So far, we've looked at how many symptoms of second puberty are likely to be temporary. Let's now turn to perimenopause as a sequence of events.

Perimenopause is a sequence of events

It starts with losing progesterone. At some point in your forties or even late thirties, you will start to make less progesterone, despite still having regular periods. You'll learn *why* in Chapter 3, but for now, just accept that it does happen and can bring a whole host of symptoms, such as anxiety, breast pain, heart palpitations, night sweats, frequent migraines, and crazy, heavy periods. The fact that perimenopausal symptoms stem largely from losing progesterone, not estrogen, is why—and we'll get into this—progesterone, not estrogen, can be the better treatment.

As you're losing progesterone, you could start to experience higher estrogen than ever before; in fact, up to three times higher, which can cause symptoms such as irritable mood, breast pain, and heavy periods. High estrogen symptoms stem both from the direct effects of the hormone and from estrogen's indirect effects on mast cells and histamine, which we'll explore in Chapters 4 and 5. Perimenopausal hot flashes stem from the fluctuation in estrogen and the drop from high to low, which means, according to Professor Prior, that flashes while you still have periods are more likely to respond to progesterone than to estrogen.

Eventually, after your final period, you'll move into the territory of lower estrogen, which is just that: *lower* estrogen, not deficient estrogen, because there's nothing "deficient" about having the level of hormone that is normal for the life phase you're in. Also, as we'll see, you still make a fair amount of estrogen during that time, but it fluctuates, so again, many of the symptoms come from the drop from high to low. Menopausal symptoms such as insomnia, memory loss, and vaginal dryness can respond to

estrogen plus progesterone therapy.

Your new state of low progesterone and lower estrogen can also contribute to a change in insulin sensitivity called prediabetes or insulin resistance.

insulin resistance

Insulin resistance is the condition of reduced sensitivity to the hormone insulin, leading to chronically (i.e., ongoing) elevated insulin levels. It's also called hyperinsulinemia, metabolic syndrome or prediabetes, and is a major player in abdominal weight gain and many other menopausal symptoms.

Identifying and reversing insulin resistance will be one of the most important parts of your menopause journey. I'll explain why in Chapters 4, 5, 7, and 8, where I'll also explain the role of relative testosterone dominance and provide treatment strategies such as *intermittent fasting*.

intermittent fasting

Intermittent fasting is daily cycling between periods of fasting and eating.

The perimenopause sequence of events is:

1. lower progesterone
2. high and wildly fluctuating estrogen
3. lower estrogen
4. possible insulin resistance.

On average, the entire natural perimenopause transition takes about seven years, and Professor Prior breaks it down into the following four phases plus menopause, which we'll explore in more detail in Chapter 4:

1. very early perimenopause, when cycles are still regular

2. early menopause transition, from the onset of irregular periods
3. late menopause transition, from the first cycle of more than sixty days
4. late perimenopause, which is the twelve months from the final period

+. menopause, which is the life phase that begins one year after your last period.

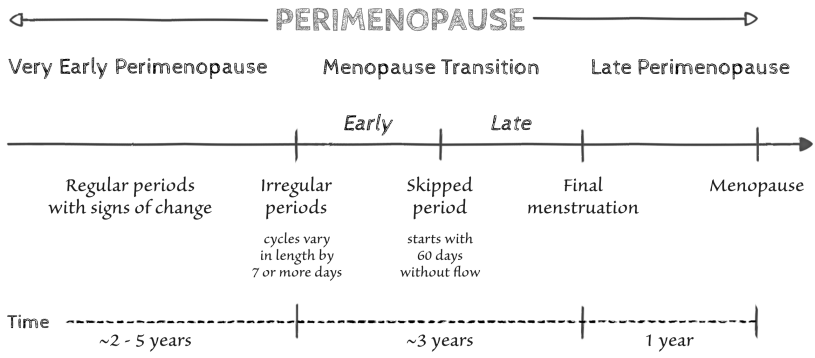

image 2 — four phases of perimenopause

If you reach menopause before the age of 45 or undergo menopause that is surgically or medically induced, you won't experience these four phases but will instead move directly to a very low estrogen state. Such a sudden transition can produce stronger symptoms than natural perimenopause and almost always requires estrogen plus progesterone therapy, which we'll also discuss in Chapters 4 and 6.

If you had a partial hysterectomy (removal of the uterus) but retain your ovaries, you will still go through the four phases of the natural perimenopause transition and have years of "hidden cycling," which means years of high estrogen and "premenstrual" symptoms, such as mood changes, breast pain and even endometriosis pain—just no bleed to signal what's going on. It can make for a confusing time because you or your doctor could mistakenly assume you're in menopause and could

therefore try to use estrogen to treat symptoms of high estrogen. That happened to my patient Rita.

Rita—Not yet menopause

Rita was 48 when she came to me for help with "menopausal symptoms," including irritable mood and monthly migraines.

"Those sound like high-estrogen symptoms," I observed, "but tell me what's going on."

"I get a bad headache about twice a month," Rita told me. "And around the same time, my breasts swell. My doctor gave me an estrogen patch, but it seems to worsen my mood and headaches."

I looked at her notes and saw she'd had a hysterectomy three years before.

"You're still cycling," I said.

"But I don't have periods," Rita replied.

"Only because you don't have a uterus to bleed," I said. "But your ovaries are cycling and making lots of estrogen, which is why there's a monthly pattern to your headaches."

We tested Rita's FSH, a pituitary hormone that can indicate menopause, and it came back in the non-menopausal range.

"I suspect you've got a few years of cycling ahead of you," I said. "Let's try a treatment more suitable for the high-estrogen of perimenopause."

Rita started magnesium and progesterone—my two favorite treatments for perimenopause—and felt a lot better.

"That should work for now," I said, "Until you get closer to menopause, at which time, you could be fine, or you could start to notice symptoms from lower estrogen such as hot flashes and vaginal dryness. If that happens, you can think about adding estrogen therapy."

Just a word about the FSH blood test, which we'll revisit in Chapter 3. FSH stands for follicle-stimulating hormone, which is the hormone your pituitary gland makes to talk to your ovaries. If you're not yet in menopause, your FSH will usually be lower than 40 IU/L, although it fluctuates, so it could occasionally be

higher. Because FSH fluctuates so widely during perimenopause, most doctors are reluctant to test it, which is fair, but I still order FSH to detect early menopause or to assess for a *non-menopausal* state in patients like Rita.

In summary, if you had a hysterectomy and don't know what's going on, here are a few things to keep in mind:

- You could still be cycling, especially if you see a monthly pattern to symptoms such as headaches, mood, or pain. Recognizing a hidden cycle means you can say, "Oh, *that's* why I had a few bad nights' sleep; I was coming up to my 'period'."
- If you can detect the day when you feel relief from your mood or sleep symptoms, that's "day one" of your hidden cycle.
- Tracking temperatures (Chapter 3) could enable you to pinpoint if and when you ovulate and have a premenstrual phase.

You can also speak with your doctor, which brings us to the first *How to speak with your doctor* section.

How to speak with your doctor about perimenopause if you've had a hysterectomy

- "I understand that because I still have my ovaries, it's possible I'm still having menstrual cycles."
- "Could my symptoms be premenstrual symptoms?"
- "Would it be suitable to test my FSH to see if I've actually achieved menopause?"

Recall that we're exploring a few key concepts. So far, we've looked at how *perimenopause is second puberty and therefore temporary* and how *perimenopause is a describable sequence of events*. We now come to perimenopause as a *critical window*.

Perimenopause is a critical window for health

As stated earlier, a critical window is a sensitive period or inflection point when small problems (if unaddressed) can amplify to larger health problems down the track. Critical windows are times of *physiological flux*, and other examples include childhood, puberty, pregnancy, and the postpartum period—all times of increased vulnerability to the onset of new health conditions. Some researchers describe such times as physiological "tipping points," when small perturbations can amplify in a way they wouldn't during a time of steady-state physiology.[6][7]

The critical window concept affects every aspect of health. For example, data from the US Study of Women's Health Across the Nation (SWAN) identifies perimenopause as a vulnerable time for the onset of heart disease and calls it "a critical window of opportunity for prevention."[8] Much of the cardiovascular risk stems from the shift to insulin resistance, which we'll explore, and which, fortunately, can be improved by simple diet changes and exercise.

Another aspect of health that can be affected is the immune system, which, as we'll see, essentially *remodels* itself during perimenopause. That's why perimenopause (like the postpartum period)[6] is a risky time for the onset or worsening of autoimmune diseases. The best example is Hashimoto's thyroid disease, which we'll discuss in Chapter 8, along with strategies for keeping your immune system safe and healthy throughout its remodeling process.

Finally, perimenopause is a risky time for the brain, in a similar way to childhood, puberty, pregnancy, and postpartum. During all those times, the brain *recalibrates*, which, to use a computer analogy, is like a software update. If all goes well with the update, the result is slightly different, but still healthy brain function. However, if even a small glitch is encountered during the update process, the result can be a larger health problem than if the same glitch occurred during steady-state physiology. One example is the slightly increased risk of first onset of serious

mental health problems during adolescence and early adulthood[9], and then again during perimenopause.[10] Overall, the risk for serious mental illness is low, so please don't worry. I present this example only to illustrate the importance of both first and second puberty as times of "neurological transition."[7]

Another example of the brain's recalibration process is the slight cognitive decline that occurs with perimenopause, which is usually temporary but can sometimes amplify to become dementia later in life. According to neuroscientist Lisa Mosconi, Alzheimer's disease in women "begins with menopause."[11] Which is not to say that Alzheimer's is *caused* by perimenopause because it's "more like a trigger than a cause." "If a woman is somehow predisposed to Alzheimer's," says Mosconi, then perimenopause "is when the risk manifests itself in her brain." We'll explore cognition and dementia prevention in Chapters 7 and 10.

In summary, perimenopause is temporary, it's a sequence of events, and it's a critical window. This book is your guide to navigating that process of change, with the aim of delivering you safe and happy into the stable final third of your life.

How bad is it going to be?

At this point, you're probably wondering how bad the symptoms of perimenopause are going to be. If you've heard horror stories from friends, you might be worried, but your actual experience will depend on lots of factors.

If you reach menopause before the age of 45 or undergo surgical or medical menopause, you're at greatest risk of symptoms and long-term health risks. I'll provide special mention of those situations throughout the book.

If you go through a natural perimenopause transition, you have a 25 percent chance of severe symptoms. More likely, you'll suffer only mild symptoms or even no symptoms. If you suffer *no* symptoms, celebrate your good fortune but also remember you're still in a critical window and should therefore take extra care of

your health for a few years.

If you *do* suffer strong symptoms, it's due to a combination of genetics, your general state of health, and the state of your periods before perimenopause. Let's look at each in turn.

Genetics

Genetics determine both the timing of menopause and, to some degree, the types and severity of symptoms. If you can, ask your mother and older sisters about any history of heavy periods, night sweats, or sleep problems. Their experience with perimenopause could provide some insight into what you can expect. That's why I say to my younger sister, "I'll go first and let you know how it is."

Fortunately, genes are only part of the story. Equally important is the *expression* of those genes, which can be modified by nutrition, movement, and supporting a healthy circadian rhythm —topics we'll cover in the coming chapters.

The state of your general health

Perimenopause is like a barometer of health in that it can reveal and amplify underlying health issues. For example, if you're already stressed and not sleeping well, the perimenopausal recalibration of your brain could make sleep almost impossible. If you're deficient in the minerals iodine and zinc, the ups and downs of estrogen could manifest those deficiencies as breast pain and vaginal dryness respectively. Finally, if you're already tending towards mild insulin resistance, the shift to lower estrogen could push you into full insulin resistance and abdominal weight gain.

"Perimenopause as a barometer of health" means that the best treatment for perimenopausal symptoms is often the treatment you needed anyway.

The state of your periods before perimenopause

If you had easy periods, you can probably expect an easy

perimenopause because symptomless periods were a good indication that everything was working well, including your body's ability to clear or metabolize estrogen (Chapter 9) and your brain's ability to adapt to the normal ups and downs of hormones (Chapter 7).

If you had difficult periods, you could experience a more difficult perimenopause because the same issues that affected your periods are going to affect your perimenopause. One example is impaired estrogen metabolism, which can contribute to heavy periods during your reproductive years and even heavier periods during perimenopause. Another example is *neurosteroid change sensitivity*, which is your brain's sensitivity to changing levels of hormones and can contribute to both premenstrual *and* perimenopausal mood symptoms.

Finally, if you still take the pill or combined oral contraception, you could encounter the problem of "estrogen withdrawal" when you stop it. That's what happened to my patient Bronwyn.

Bronwyn—Coming off the pill

"My hot flashes are terrible," Bronwyn told me. "They came on with a vengeance as soon as I stopped the pill. And my skin is drying up."

"You may have already been in menopause for a while," I pointed out. (Bronwyn was 53.) "The pill was just masking it by giving you fake periods and a strong synthetic estrogen that prevented hot flashes. Unfortunately, estrogen is addictive, so you're now suffering estrogen withdrawal."

Bronwyn looked at me in dismay. "How long does estrogen withdrawal take?" she asked.

"Hard to say,' I admitted. "At least several months."

I talked to Bronwyn about magnesium supplements, exercise, and some of the other ways to adapt to lower estrogen, but by this point, she was at the end of her tether.

"Maybe I should just go back on the pill," she proposed.

"If you want to go back on estrogen, you're better off looking at hormone therapy," I explained. "Modern menopausal hormone

therapy is bioidentical, which makes it gentler and safer than contraceptive drugs."

Bronwyn chose to use a bioidentical progesterone capsule and estrogen patch, which she hoped to eventually taper down.

Bioidentical estrogen and progesterone are identical to the body's own hormones and so are safer and have fewer side effects than contraceptive drugs or older types of hormone therapy such as conjugated horse estrogens (Premarin®), which were popular in the 1990s. *Body-identical* is another term for hormones that are identical to the body's own hormones. The main difference between "body-identical" and "bioidentical" is that body-identical is sometimes the preferred conventional term and bioidentical the term traditionally applied to customized hormone formulas dispensed by a compounding chemist, back in the day when compounding was the only way to obtain hormones identical to the body's own hormones. Modern bioidentical products are available from any doctor and pharmacy and are widely regarded as safer than non-bioidentical hormone therapy (Chapter 6).

Were you surprised when I said to Bronwyn that pill bleeds are fake periods and "estrogen is addictive"? We'll cover those topics in the coming chapters, including a section in Chapter 3 called *What does the pill mean for perimenopause?* For now, suffice it to say that Bronwyn experienced strong symptoms because she moved directly from the pill to menopause and therefore did not have the opportunity to move gradually through the four phases of perimenopause.

Is hormone therapy always the answer?

In both patient stories so far, my patients opted for hormone therapy, which is common but not the rule. Rita took progesterone for perimenopause, which I suspect is all she was going to need. Bronwyn took both progesterone and estrogen, in large part because she was in the challenging situation of trying to transition from high-dose synthetic estrogen. As we'll see in

the coming chapters, some of my patients do not require hormone therapy but, instead, do well on simpler, non-hormonal treatments.

Your decision to use hormone therapy will depend on many factors, which we'll discuss, and on your preference. If you don't want to take hormone therapy, that's perfectly okay because there are other options for many symptoms. At the same time, if you do want to take hormone therapy (and your doctor says it's safe), then that's okay too. As we'll see in Chapter 6, modern hormone therapy is safer than the old "hormone replacement" of the 1990s.

What comes after and staying well in the long term

Your immediate goal is to feel well during what can be a tricky transition. Depending on your situation, feeling well could require changing your diet, lifestyle, and/or taking supplements or hormone therapy, many of which could be temporary measures. As you move deeper into the life phase that is menopause, your health should stabilize, and you could find you no longer need the supplements or hormone therapy for night sweats, mood, or sleep problems.

Instead, you may need to shift your attention to milder, ongoing symptoms such as bladder problems and vaginal dryness, all of which we'll explore in Chapter 10. The final *What comes after* chapter is also where I'll provide strategies for maintaining the long-term health of your bones, heart, and brain.

Are you ready to embark on the journey to menopause? Let's begin by exploring the emotional and social aspects of this important life event.

Chapter 2

Stigma, freedom, grief, and everything in between

How do you feel emotionally about the prospect of menopause? Or about the experience so far if you're further along? If you're anything like me, your experience of menopause when it arrives might differ from what you expected. In addition, your experience might differ from that described by other women, which is allowed.

If there's a theme of this chapter, it's that there's no one *right way* to emotionally transit into menopause. You might rejoice, or you might grieve, or you might feel a mix of the two, and that is fine. You have permission to feel what you feel and not apologize or feel the need to explain yourself. In fact, as we'll see, the freedom to not apologize or people-please might be one of the best things about second puberty.

Let's begin by addressing what I see as the elephant in the room, and that's the stigma of menopause and the shame that can cause us to feel.

Stigma and shame

If you're entirely comfortable with becoming menopausal and feel no sense of shame, you can skip this section. If, however, you've come up against the stigma of menopause or felt even a fleeting flash of shame, let's get it out in the open so we can dispel it.

Menopause is nothing to be ashamed of. I know that. You know that. But, unfortunately, we may still encounter a distinct sense of awkwardness from others that can be easy to internalize if we're not careful.

Sonia—Too much information

Sonia is a doctor in her late forties. She works in a busy teaching hospital and could be considered in every way at the peak of her career.

One day on a coffee break with her colleagues, Sonia mentioned in passing, "Oh, I'm all sweaty because I'm having a hot flash." The men in the group responded almost in unison, "Sonia! Too much information," laughed awkwardly, and quickly changed the subject. The other women in the group were younger than Sonia and remained silent.

Sonia told me she felt a flush of shame that was in many ways worse than the hot flash that precipitated the moment. She was with a group of colleagues with whom she was accustomed to easy banter, but at that moment, she learned that, for them, her simple experience of a hot flash was highly off-putting. But why? A hot flash is not in the category of intimate bodily functions like sex or even the bleeding of menstruation. Instead, a flash is just feeling hot, which can happen to anyone, and which presumably even male colleagues would have no qualm discussing casually.

Sonia pondered the interaction over the following weeks and decided she had been well within her rights to make a casual mention of menopause. The next time she experienced a flash, she boldly mentioned it and, when her colleagues winced, made the friendly retort: "Come on, guys. Seriously? You're doctors."

For me, there are several interesting aspects of this story,

including, I would say, the rather valiant way Sonia held her ground in the second encounter. I was also interested that the young women remained silent, which I suspect was because they felt the stigma of the "M-word" and preferred to stay out of it. Perhaps the most interesting aspect was that, as Sonia pointed out, they were all doctors and should have known better. If menopause carries a stigma even in what should be the knowledgeable profession of medicine, what hope is there for other professions?

Indeed, according to the British Medical Association, menopause does carry a stigma with doctors. The Association surveyed more than 2000 female doctors and discovered that although many experienced symptoms of perimenopause, few were willing to discuss it with colleagues or managers for fear it would result in being "laughed at or ridiculed."[12]

"If I mentioned my perimenopausal symptoms," said one respondent, "I would be stigmatised and disrespected as someone who was no longer rational or capable."

As a refreshing contrast, Michelle Obama said her husband Barack was unfazed by the perimenopausal symptoms reported by her and some of his senior cabinet members. "It's fine," Barack told his colleagues. "This is just how we live."[13]

Speaking openly about perimenopause is the best way to counter stigma and normalize women's experience in the workplace. It's also helpful in the personal sphere, as I discovered in a recent conversation with my nephew, who is in his early twenties. We were together with family members, which included mostly women but also a couple of men. When asked about my work, I mentioned menopause, and in response, the couple of men present, of course, made a gentle joke about "too much information." At first, we women laughed along with them, acknowledging the taboo, but then I decided to gently point out that menopause is actually an interesting topic and not at all inappropriate for mixed company. At that moment, my young nephew, bless him, responded sincerely, "Oh, interesting," before pausing and finally asking, "Actually, what is menopause?"

My nephew confessed that he knew only that menopause was somehow vaguely about aging but didn't know it meant the end of periods when one is still fairly young and certainly didn't know it could be affecting his 40-something mother and aunt. I proceeded to explain all the interesting things about menopause from an evolutionary perspective (which we'll get into below), and my nephew was (or at least seemed) genuinely attentive to the information because he's a thoughtful young man who is interested in the world.

Destigmatizing menopause by speaking about it can make us feel better and more confident. It may even reduce the impact of physical symptoms, which suggests that to at least some degree, shame amplifies physical symptoms.

Naila—It means I'm old

I'd been working with Naila on hot flashes, which, after a month of treatment, had reduced from four per day to just a few per week. Her sleep was good, with no night sweats. So far, she was using magnesium and taurine (Chapter 7), and we were discussing what further treatment (if any) she required.

"I'm open to helping you explore further treatment options, including hormone treatment," I said, "but first, I'm just trying to understand the main symptom you need to see improved. Is it still the hot flashes?"

She nodded yes, the flashes.

"It's only a few flashes in the week," I pointed out, "and hot flashes aren't harmful. Are they severe?" I asked her. "Or distressing in some way?"

At that moment, she teared up, and I knew we had arrived at the crux of the matter.

"Tell me," I encouraged.

"It means I'm old," she said quietly, which made me sit back in my chair and tear up a little too. Even the occasional hot flash was upsetting to Naila because it signaled to her that she's old.

"They make me feel like my life is over," she continued. "That I'm no longer a woman."

To which I pointed out that she is still a woman and likely has decades of vibrant life ahead of her. "Menopause is not synonymous with aging," I explained, "although, of course, you're also aging, which is allowed."

Naila decided to speak to her doctor about estrogen therapy to eliminate the flashes, in large part, I think, to avoid any emotional reminder of the change. I think she was also hoping estrogen would have some anti-aging effects.

As to whether estrogen therapy (i.e., estradiol) is "anti-aging," that's still very much up for debate. Estradiol does increase the thickness and elasticity of the skin, which, in theory, should reduce wrinkling, especially if applied topically. However, estrogen is not usually prescribed for that purpose, and there are almost no studies to support its use for cosmetic purposes.[14] As you'll see in the coming chapters, I'm generally supportive of estrogen therapy, even for its anti-aging effects, but please know there are plenty of other ways to slow biological aging, including all the obvious strategies such as eating well, staying active, and, most importantly, not smoking.

This chapter is about the range of emotional responses to menopause that arrives naturally at the appropriate age of 45–55. Early or surgical menopause is a different situation and may understandably be associated with more negative emotions. See Chapter 4 for a discussion of that process.

Coming to terms with aging

First, 50 is not elderly. Which is not to say that elderly is bad, because of course it's also a normal life phase, but that's for another book. This is a book about perimenopause and menopause, which means you're in the approximately 40–60 age range and, therefore possibly several decades from elderly. The erroneous conflation of menopause with old age is reinforced by the "walking stick" type stock images consistently and frustratingly used by the media for articles about menopause. No wonder my nephew thought menopause was just "vaguely about

aging."

Second, aging is allowed. Fifty is not old, but it's also not exactly young. Most of us at 50 are unlikely to have a face that looks 30, and I say why should we have to? Every time we praise a woman for looking young, or at least for not looking old, we reinforce the pervasive and oppressive belief that aging is bad and that, as women, we need to strive to stay young and nubile. Which, obviously, we cannot do and shouldn't have to try. Instead, we remain strong if we're able, healthy if we're lucky, and sexually active if that's what we want for our pleasure. None of that requires looking a certain way.

I had personally feared—I'd even say *dreaded*—the loss of a youthful appearance. If you felt the same, I think we can be forgiven for such vanity. We live in a culture that continually tells us that smooth-skinned and lithe-figured is the only acceptable way for a woman to be. For that reason, it was quite natural for me to dread the loss of my youthful appearance, but then something surprising happened. I arrived at 50 and discovered that I simply don't care as much about looking young as I thought I would. I mean, I care about being healthy, which usually results in looking somewhat younger. I also care about being well-groomed and wearing nice things, and yes, I color my hair, although I truly admire women who keep their natural gray. I just don't care to engage in an all-out battle with aging because, at the end of the day, I have better things to do. It's a refreshing departure from the constant need to be pretty that many of us feel as young women.

Lexicographer Erin McKean put it well when she said: "You don't owe prettiness to anyone. Not to your boyfriend/spouse/partner, not to your co-workers, especially not to random men on the street. You don't owe it to your mother, you don't owe it to your children, you don't owe it to civilization in general. Prettiness is not a rent you pay for occupying a space marked 'female'."[15] In the same social media exchange, McKean went on to say, "I'm not saying that you shouldn't be pretty if you want to." In other words, you don't owe prettiness to anyone, but you also don't owe *un*prettiness to anyone or to menopause. Your

appearance is yours to do with as you wish and as you can, so long as you don't feel oppressed by the unrealistic pressure to stay as pretty as you were in your twenties.

For me, letting go of being the young kind of pretty has been a great relief and part of a larger long-term project of letting go of perfectionism. Brené Brown says that "Perfectionism is the belief that if we live perfect, look perfect, and act perfect, we can minimize or avoid the pain of blame, judgement, and shame. It's a shield. It's a twenty-ton shield that we lug around thinking it will protect us when, in fact, it's the thing that's really preventing us from flight."[16] If you're also experiencing menopause as the lifting of the 20-ton shield that is the self-consciousness of your reproductive years, then you're also catching a glimpse of what I can only describe as the "Don't give a f*ck" freedom of menopause.

Freedom and invisibility

I'd heard about the freedom of menopause from patients, but I guess never believed it. The moment I began to understand was on a walking holiday several years ago with my sister, who, though younger than me, is wiser than her years. She drew my attention to the small groups of happy 50-something women we were passing on the trail.

"They're in on a secret," my sister observed. "Their kids are grown, and their husbands aren't with them. They're just themselves now." I hadn't noticed the older women until my sister pointed them out, which speaks volumes, I think, about the *invisibility* of older women—which I would argue is related to the freedom of menopause. Invisibility and freedom are two sides of the same coin.

First, menopausal invisibility is mostly (not exclusively) about being less visible to men, especially younger men—clearly only an issue if you're heterosexual and cared about that sort of thing in the first place. Menopausal invisibility can also make it harder to be heard or taken seriously at work, especially if you don't color your hair. While this is incredibly unjust, it's true

nevertheless if you work with men or appear in the media. Friends tell me it's easier to be gray in more female-dominated fields, which makes sense, and it all may change with the new "embrace the gray" movement on social media. The more we see powerful, successful gray-haired women, the more we will learn to view gray as "distinguished" for women, just as we do for men.

There are several positive aspects to menopausal invisibility. On the men front, there's the fact that you are less likely to attract unwanted attention from random men on the street, a decidedly positive change. "Sailing under the radar of the male gaze seems to be a problem for precisely no one," observed Sam Baker, the former editor of *Cosmopolitan* UK.[17]

If you're like me, you may also find yourself less distracted by potential romantic partners, which leaves room to think about other things. It's a freedom from being preoccupied with sex the way you might have been when you were younger, but it doesn't mean you stop having sex if having sex is what you want to do, either with a partner or with yourself.

Because yes. With menopause, you will still be a sexual being in whatever way is pleasurable to you, and that's true whether your libido goes up (which can happen), stays the same, or goes down. If your libido or desire for sex goes down, it's okay. It does not necessarily mean something is *wrong* with you but instead may be a perfectly normal response to fatigue from perimenopausal sleep disturbance, declining estrogen levels, or simply sexual boredom after 20 or 30 years of marriage. We'll look more at desire in Chapter 10, where we'll also explore treatment options for issues such as vaginal pain, dryness, and prolapse. In the meantime, I like how Lisa Renee describes perimenopausal sex in her blog post *Open Letter to Women:* "You will find sex alternately mind-blowing and non-existent, emphasis probably on the latter."[18] I can definitely relate to that.

Another positive aspect of menopausal invisibility is that you will no longer be questioned about whether you have children. It's a welcome change if you're like me and did not have

biological children. It may even be welcome if you did have children but now have an opportunity to be seen as just you and not constantly put in the category of "mother" or "not mother."

Freedom from being gawked at by strange men; freedom from being preoccupied with sex; freedom from being questioned about your reproductive status. Those are just a few privileges on the "freedom side" of the invisibility–freedom coin. There's also the significant freedom from caring as much as you used to about pleasing others. The need-to-please of our reproductive years may stem, at least in part, from estrogen and progesterone, which arguably have the effect of making women kinder, gentler, and more self-sacrificing. To cope with what British journalist Caitlin Moran calls the "ass-hattery of small children," women are kept "tipsy and philosophical on shots of warm oestrogen" and are thus better able to cope with the "ass-hattery" of everyone else. Until menopause arrives, writes Moran, and suddenly, there's no more "'lady forgiveness' left in the tank."[19]

If you've run out of "lady forgiveness," then you've arrived at the time in your life when you will begin to find it easier to say no. Not relentlessly no, because, of course, you still have responsibilities, especially if you still have young children at home; just more frequently no, because you're starting to realize that it's not your job to put everyone else's needs ahead of your own. Hopefully, saying no will mean spending more time doing what you enjoy and, more importantly, spending less time apologizing or justifying yourself for doing so. My menopausal patients report increased time spent on activities such as travel, volunteer work, singing, getting a Ph.D., running, and strength training. "For me, menopause is about getting strong," said one patient, and, true to her word, she spends hours with her trainer working on lifts.

My passion is walking, both "around the local park" walking, if that's all I can get, and all-day or multi-day walking when that's available to me. I love heading out and feeling all the small things fall away. When I'm walking, it's just me in my body with my feet on the ground, and it doesn't matter that I'm behind on my emails or should really get my act together to write a new

blog post. Walking has been my act of rebellion ever since I was a girl and read the delightful description of Lizzie Bennet in Jane Austen's *Pride and Prejudice*: "To walk three miles, or four miles, or five miles, or whatever it is, above her ankles in dirt, and alone, quite alone! What could she mean by it? It seems to me to show an abominable sort of conceited independence, a most country-town indifference to decorum."

The words were spoken by Miss Bingley, who, of course, meant them as a criticism of Lizzie, but who unwittingly described a state of "conceited independence" that is highly appealing to those of us who desire to be alone and "above our ankles in dirt." When I first read the passage, I decided it is wonderful to be alone in the countryside, and have drawn comfort and pleasure from the pastime ever since. Only now, decades later, can I finally see how those words spoke to an authentic part of myself that is ready to return to its semi-wild ways.

Return to girlhood

In a beautiful essay called "The wildness of girlhood,"[20] Tasmanian writer Bonnie Mary Liston opens with the Emily Brontë quote: "I wish I were a girl again, half savage and hardy, and free," and then goes on to describe nine-year-old girls as having an outlook that is "a strange mix of anger and joy." She tells of the "girls who become obsessed with horses, or wolves, or witches, and who knew themselves to be wild creatures like those. They vanish outdoors, hiding in trees, sticking their hands in the dirt, making potions from mud and sticks. They escape into complex worlds of their own imagining, shared between other little girls or solitary kingdoms."

"Of course, it passes," she writes. "We age out of wildness and straight into puberty, where our anger is on ourselves, and our bodies, and our mothers, and I don't know what else. We're part of the world again, and sometimes we forget being wild altogether."

Liston's description of girls is in line with the findings of Harvard psychologist Emily Hancock, who says that girls

crystallize their most authentic sense of self sometime between the ages of 8 and 10.[21] After that, Hancock says, puberty arrives, and girls can often start to feel the pressure of the female gender role. "Puberty requires girls to swap blue jeans for a skirt and independence for the female role," she writes and then concludes that the process can *reverse at menopause* when women have an opportunity to reconnect with the inner girl and reclaim their lost sense of self. "By reaching back to the girl within, [menopausal women] are on their way to reclaiming their independence and identity."[22]

Reconnecting with my nine-year-old self has been a wholly unexpected but enchanting part of the perimenopause transition. It's given me permission to walk more and to shirk my duties in a way I could never have predicted.

"I just don't feel like cooking a vegetable tonight," I now sometimes say to my husband. It's an act of rebellion because I would normally insist on adding a green vegetable to the meat and potatoes prepared by my husband.

"We can do what we want," I say. "No one is the boss of us."

"You are like a kid again," teases my husband, who will then sometimes cook the vegetable or just agree we eat dinner without it. Of course, I don't recommend routinely skipping vegetables because vegetables are healthy. I'm just inviting you to occasionally not bother with that irksome task of chopping broccoli or loading the dishwasher, but instead head out on a walk or do whatever it is you need to do. You might find that shirking duties and reclaiming your nine-year-old-self is a direct conduit to increased emotional energy, enthusiasm, and what has been described as "menopausal zest."

I caught a glimpse of menopausal zest one day when out on a long walk with my husband, and he wanted to turn back because it was late and we'd already been walking for five hours. "Oh, let's keep going," I urged. "All the way to the point." We then happened to meet another couple our age, and they were in the same situation, with the man flagging and the menopausal woman raring to go. My husband remarked on the energy of 50-

something women. "Where's my menopausal upgrade?" he wondered.

The Japanese word for menopause is *konenki*, which translates as "renewal years" or "energy." And if there is an energy upgrade at menopause, it surely stems from the resurgence of the girl within, a phenomenon that appears to span the boundaries of culture. For example, in a study of women from the traditional Chichimila culture of the Yucatán in Mexico, anthropologist Yewoubdar Beyene observed that many of the women reported feeling "young and free" with menopause because it meant they could return to the stage of life before the burdens and restrictions of their reproductive years.[23]

If you haven't yet experienced any sense of being "girl-like" or "young and free," then, of course, that's fine. There's lots of other stuff going on.

Grief

According to grief expert David Kessler, "Grief is a change, usually one we did not want. Grief is the recognition of that change, but it's also the loss of a connection. And at its heart, grief is love; it's love for whatever we had that is now gone."[24] Kessler explains that grief can be *macro*, such as for the loss of the loved one, or *micro*, such as for a divorce or other life change.

Menopause is a life change, a micro-grief, and, ultimately, a love for the youth that is gone. As much as we may want to just "get on with it" and not wallow in negative thoughts, it's important to at least acknowledge the grief we may naturally feel at the end of our reproductive years. I feel it. For one thing, I'm sad to reach the end of my reproductive years and of the opportunity to have biological children. I'm also sad to see the end of my youth because although in many ways I still feel young, I know in reality that I'm not, and it's a relief to just say so. It's even more of a relief to hear it said by others, such as actor Gillian Anderson, who declared that "perimenopause and menopause should be treated as the rites of passage that they are. If not

celebrated, then at least accepted and acknowledged and honoured."[25]

In short, it's okay to be sad. Sad you're not young, sad you're losing power in a society that values younger women, sad that it might be "too late" to do all the things you wanted to do. Of course, it's not too late for many things, but it is too late for some things; opportunities have passed you by just as they have for all of us.

It's also okay to feel sad about children who are grown, or children who are lost, or children who never came into being. Just as it's okay to feel sad about all the other relationships that are changing or being lost as you move through life.

Menopause is like the beginning of autumn, which is a beautiful and productive season but is also the second half of life, and therefore the time when you start to understand, perhaps for the first time, that life is precious and finite. "When the 50-year-old woman says to herself, 'Now is the best time of all,'" wrote Germaine Greer, "she means it all the more because she knows it is not forever."[26]

The way through grief, according to Kessler, is to find *meaning*. "We always think we're supposed to make grief smaller," says Kessler. "But the reality is: we have to become bigger." Which I adore. *Becoming bigger* feels like the freedom we spoke about earlier in the chapter. And, as Germaine Greer explains, it might start with realizing that "when you are young, everything is about you. As you grow older and are pushed to the margin, you begin to realise that everything is not about you, and that is the beginning of freedom."

Life is not about you. Neither is menopause. Instead, life and menopause are part of the larger and continuous experience of generations upon generations of women.

The meaning of menopause through an evolutionary lens

Menopause is unique to humans and just a few species of whale.

Most other animals, including long-lived mammals like African elephants and great apes, continue to reproduce until close to the end of their lifespan. Menopause is, in other words, quite special, or, from the perspective of evolutionary biology, quite weird.

"It's weird that women and whales live beyond menopause," says Harvard anthropologist Bridget Alex[27] and most scientists agree. Why do we stop reproducing when we are only half or, at the most, two-thirds of the way through our lifespan? It requires an explanation, which, until recently, was that we now live longer and so outlive our ovaries. But is that true? Or is human longevity more ancient than we thought?

Ancient people did have a relatively short *life expectancy*, which means that, on *average*, many of them died young due to infection, injury, or, in the case of women, childbirth. Life expectancy is a statistical construct and quite different from *lifespan*, which is the most extended period over which biological life may reasonably extend. As an example, take two people, one of whom dies before their first birthday but the other lives to 70. Their average *life expectancy* is 35, but the observed *lifespan* is 70.

Updated archaeological evidence now tells us that if individuals from ancient societies were lucky enough to escape early death, a good number of them *did* live to 70 or 80 or beyond. According to Stanford historian Walter Scheidel, "the lifespan of humans—as opposed to life expectancy, which is a statistical construct—hasn't really changed much at all."[28]

So if at least some women have always lived to 70 or 80, it brings us back to the question of "why stop reproducing at 45?" Could it be that menopause *itself* is beneficial and not just an accident of living too long?

Historian Susan Mattern from the University of Georgia argues that, yes, menopause is beneficial both for humanity and for individual women trying to pass on genes (which is how evolution works). In her book *The Slow Moon Climbs: the Science, History, and Meaning of Menopause*, Mattern builds the case that extended human longevity evolved in response to

natural selection for traits that permitted women to spend decades in the post-reproductive state.[29] Because long-lived post-reproductive women were so *useful* to their family groups, she says, they were able to pass on their long-lived genes to their descendants, resulting in a longer lifespan for both women and men. In that way, male descendants benefited from the selection pressure on a female trait.

Such an analysis is part of the *grandmother hypothesis*, which has been around for a while but has recently gained traction. This posits that at some point in our evolution, it became more advantageous for women to redirect their resources into providing support to their *existing* children and grandchildren rather than producing more children of their own. Furthermore, the grandmother hypothesis requires that post-reproductive women are valuable to their family groups, which indeed they are. According to studies of present-day forager peoples such as the Tsimané of the Bolivian Amazon and the Hadza of Tanzania, the foraging productivity of older women is high, peaking at 50 and remaining high until their death. More importantly, menopausal women share most of the food they gather and are estimated to provide each grandchild with an additional 500 calories per day.[30] According to the research of anthropologist Kristen Hawkes from the University of Utah, Hadza women routinely live well into their seventies and eighties and provide more food for the group *than any other age or sex*. Far from elderly women being a drain on society, observed science writer Natalie Angier, "The Hadza might worry … what would happen if they didn't have their corps of old ladies."[31]

Thanks to menopause, argues Mattern, and the support provided by post-reproductive women, young women were able to have more babies close together, which enabled human groups to bounce back from famine and other crises. Humans were also able to evolve bigger brains and thrive in all parts of the world—all because of the food, childcare, and wisdom provided by grandmothers.

If you're a grandmother or hope to be a grandmother, you may have personal experience of the meaning derived from such a

role. I'm not a grandmother myself, but I'm still comforted by the knowledge that I descend from a long line of grandmothers who have been highly *useful* to their communities. I also derive meaning from the knowledge that the physiological changes I'm undergoing with menopause are probably the expression of generations of successful adaptation and not merely the accident of living too long.

The environment and life history under which menopause evolved differ substantially from our modern environment and relatively few number of pregnancies. It's an evolutionary mismatch that may account for some of the modern symptoms of menopause not reported by women in forager societies. See Chapter 4 for a discussion.

Viewing menopause through the lens of evolutionary biology is just one way to "become bigger" and find a way through the grief. There are countless other emotional and spiritual ways to reframe the experience, including caring for grandchildren or other children, helping your community, or turning your gaze to volunteer work or other large projects. My project is to share my knowledge with women and improve their lives. By doing so, I experience what I can only describe as a motherly or grandmotherly feeling for all the young women who benefit from my teachings.

Additional routes to meaning include writing poetry or working to save the environment, or even just spending time in nature and being grateful to be alive. After all, it's common to still be alive by 50 but not a certainty; only about nine in ten of us make it this far.

Everything in between

As stated at the beginning of this chapter, there is no one *right way* to transit emotionally into menopause and beyond. The experiences are as diverse as women themselves, which is how it should be.

To research this chapter, I conducted an informal survey on my

social media accounts, asking women to express how they feel about the prospect of menopause or their experience so far if they're further along in the process. Here are some of their responses:

"I love my monthly cycle and celebrating its rhythm. I'm sad to lose it and not feel like a woman anymore."

"Very relieved that periods are a thing of the past."

"The stigma is the worst, menopause less so."

"Grateful to not have to deal with periods anymore."

"Looking forward to not having to worry about all things period-related and the risk of pregnancy."

"I think science should make this journey as comfortable and symptom-free as possible."

"It's like childbirth. No one wants to talk about it because it's messy and unhinged."

"Seeing women who I admire speak openly about menopause has made a huge difference in my anxiety levels towards it."

"I feel invisible now. Like I'm not noticed in the room the way I was when I was young and beautiful."

"Giving up my youthful beauty which created a lot of privilege also has brought me to a deeper place with my compassion for others."

"I feel grateful to find strength from time in nature."

"My loss of libido feels like a loss of vitality."

"Trying to embrace it."

"Every day that I'm alive is certainly a blessing but I'm also sad that I sometimes don't recognize my face in the mirror."

"Happy to be reaching the end of endometriosis pain."

"Happy to finally feel free from people-pleasing."

"I grieve for my youth, especially when I catch sight of changes in my appearance. But I think I have found myself and know

what I want from life and finally have the confidence to go for it."

"I'm scared because I haven't had kids yet."

"All through my forties, I wondered how I'd feel if I got pregnant. The feelings never caused me distress, other than a bit of wistfulness for what might have been."

"I have fear and sadness because I have not been able to have children. Where will my support come from?"

"It's been a rough at times crazy ride but I'm not complaining because it's part of being a woman and alive and my best friend didn't get to go through it because she died of breast cancer."

"I'm nervous because I don't know anything about it."

"I worry about how people view me quite a lot."

"I don't care so much about what people think anymore and that's a huge relief!"

"My body feels like a stranger. I'm grieving for the ease of who I used to be and for my role as a young mother."

"I'm approaching it with curiosity and intend to view it as the next great transition."

"I'm sad watching the younger me leave the room."

"I can't wait to get rid of periods and the pain and mood symptoms that come with them—I say, bring it on!"

"I'm terrified because I watched my mum have such a horrible time. But also looking forward to being sterile."

"Hallelujah. Menopause hasn't been the awful experience it's painted to be."

"Terrified."

"Definitely wiser, not taking any nonsense."

"Can't wait."

– end of sample –

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