THE
HORMONAL
ACNE SOLUTION

NO ANTIBIOTICS. NO BIRTH CONTROL PILLS.
NO ROACCUTANE.
This book is dedicated to my late mother - the most beautiful woman I know, who encouraged me to give the best of me.

To my loving father, who raised five children on his own and made sacrifices for our happiness.

To my family, who are the most important people in my life. To my brothers and sisters, who remind me to keep laughing and enjoy life.

To Kurt, my soul mate and the love of my life - thank you for your unconditional love and support. I would not be able to do what I do without growing grey hairs and extra wrinkles. You keep me young and glowing.

To the mothers reading this book who want nothing more than their daughters feeling confident in their skin.

To every woman who has struggled with acne and invested in enough pimple creams and treatments to write a book of your own. I hear you. Thank you for coming on this journey with me.
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OVERVIEW

ACNE.

Also known as…

Spots! Monster zits! Irritating blackheads! Yucky whiteheads! Pimples!

Acne is an embarrassing, frustrating and sometimes debilitating skin condition that affects 80% of the population at any one time. If you picked up this book, it’s probably affected you in more ways than one – cancelled dates, numerous nights out, client meetings, business presentations, much anticipated job interviews or (heaven forbid) during your wedding!

It’s an epidemic that has seen the global acne market rise to the challenge with new skin products, new prescriptions, new treatments and new technology to tackle the problem. In 2009, $2.9 billion was spent on this growing market and it is estimated that the global acne market will reach revenues of $3.02 billion by 2016.

However, with so much money being poured into the industry, adult acne is still on the rise, with some people feeling depressed, embarrassed, isolated and having suicidal thoughts because of this condition. As an Integrative Cosmetic and Skin Doctor, I continually see women in my practice with a variety of acne disguises who are “plagued” by these unsightly “aliens” on their faces, backs, chests and even arms. They tell me they are confused about what works and they express their disappointment with what doesn’t, not to mention how much money they have spent on wasted products and treatments.

Our modern lifestyle and love of all things sweet and convenient doesn’t help improve the problem either. The great thing about living in this era is that modern advances give us more options to treat the effects of acne and suppress it so it won’t reoccur. However, with more options come extra side effects and more money spent in the industry on trying to fix
these new side effects. For example, antibiotics, birth control pills and roaccutane are usually prescribed when all hope is lost. However, each causes its own hormonal imbalance which can make matters worse when you stop the medication. When the next magic pill doesn’t work as it was claimed to without any side effects, frustration and depression brews again. You focus on your skin problems longer than you would like to, distracting you from living your life instead.

So the problem is not going to go away on its own......... Or can it?

With modern treatments having their share of disappointments, people are turning to more natural ways to prevent and treat acne. Complementary treatments such as nutritional therapy, acupuncture, naturopathy, homeopathy, Ayurvedic medicine and traditional Chinese medicine (TCM) are gaining popularity in the wider market. However, this can also be an expensive exercise in appointments, herbs and supplements. With the development of the internet and popularity of YouTube videos, people are learning how to treat their skin at home, avoiding expensive visits to the doctors or departmental store. Even a 12-year-old girl can upload a YouTube video. It’s an exciting time indeed for acne sufferers. However, too much information can also be a bad thing.... how do you know what works and what doesn’t?

In this book, I hope to use my own experience to make things clearer for you. There is more collaboration between the medical and the complementary world and I sense a collaborative centre piece where more medical doctors are being trained in complementary medicine so that they can provide a more holistic and sustainable treatment plan for their patients.

I know what it feels like having acne.

MY STORY
I was plagued with acne in my teens that returned in my late twenties. I was bullied in school and it affected my confidence into adulthood. Hoping that one would work, I have tried antibiotics, birth control pills and the skin product rouletteΔ which have all been disappointing. I
developed an eating disorder, my hair was falling out, I was depressed and I had suicidal thoughts. Not my best memories.

I love what science has to offer and I love all the amazing treatments that my industry can offer. However, I felt it was only masking the problem and wasn’t treating the root-cause. I did my research, studied new age doctors in India and America and realised my skin was just expressing the hormonal imbalance my body was going through. When I learned how to balance my hormones, my skin improved dramatically. Now I use minimal skin products, and hardly wear any foundation. Inspired by my late mother, I now combine functional medicine and hormonal rebalancing to help my patients treat their acne from the source while clearing the effects on the top.

“The skin has an amazing ability to heal and I believe you can achieve beautiful skin too.” Dr. Terry

**IMAGINE A NEW WORLD....**

1. Waking up in the morning without any skin breakout surprises.
2. Having beautiful smooth skin that you don’t have to wear heavy foundation to cover.
3. Looking naturally beautiful with or without makeup (and people asking you what’s your secret!)
4. Scars that heal well and pigmentation that fades.
5. Spots that come up and go away quickly and easily.
6. Looking in the mirror and seeing a beautiful, strong and healthy woman looking back.
7. Looking in the mirror and seeing a successful, happy woman.
8. Feeling your smooth, plump and even-toned skin when you’re in the shower (and proud to let your partner feel it too).
9. Feeling even more confident when you go into your business meetings or big presentations, knowing heads will turn when you walk into the room with glowing skin.
10. Feeling extra sexy, attracting and keeping the love of your life.
11. Feeling in control, in harmony and with poise; wearing different hats, executing different roles to the best of your ability while your skin is happily behaving itself.
12. Looking forward to your daily skin rituals (short or long).
13. Knowing how to read your skin so you know which skin products to use and when to use them.
14. Knowing how to read the triggers in your food, your lifestyle and even your thoughts that may be exacerbating the problem so you can go about your day without worrying.
15. Knowing how to read your cycles so you can avoid PMS and monthly breakouts.
16. Feeling reassured that your skin behaves itself in preparation for a hot date, a job interview or business presentation.
17. Feeling confident about finding the right product and treatment for you to treat the after-effects of acne.
18. No more judging, blaming and feeling depressed about your skin.
19. Saving money through no longer trying skin products and treatments that do not work for you.
20. Feeling confident about finding the right facialist or doctor to help you with your journey if necessary.
21. Feeling in control again, feeling that you’re standing taller, happier and excelling in your personal and professional life.
22. Feeling safe that you don’t have to suffer from the side effects of antibiotics, birth control pills or roaccutane.
23. Feeling relieved that you can stop worrying about your skin and get on with your life.

That world is very possible, if approached in a methodical, integrative manner while having fun with the process.

My beautiful late mother had terrible acne too, not to mention psoriasis and eczema, which plagued her whole body. It was only after she passed away when I was 19 years old (just three weeks after I started medical school in a new country) that I learned how her skin had affected her confidence. I wished I could have helped her with what I know now. However, I know she is watching as I dedicate my career to helping women feel confident in their skin.
I have written this book to share with you what I have learned from my own research, observation, experience and through working with hundreds of women. I’m continually learning and my patients have asked me to write a book on this topic to help educate more women that I am unable to see. I hope this book will help you understand the correlation between your hormones and your skin, and how to take control of it again.

Please take this book as a guide and a way to start a new conversation with your therapist, your skin doctor and even yourself. The hormone system is so beautifully intricate and I’m continually at awe every time I learn something new about each hormone and how it all relates to the intricacy of life.

I will share with you how I have found acne to actually be an external radar for when the information you put into your body, your mind and your life is conflicting with your life’s goal (stick with me here, I’ll explain this in further chapters). This also goes for the products you use (or do not use) and what your skincare routines are. I will share with you from my own experience how to learn to love your acne and work with it to achieve beautiful smooth skin, not to mention a healthy body and happy life.

Part I will cover the specific hormones that cause acne, and how to read your skin to know what is working and what is not. I will share with you the framework of The Hormonal Adult Acne System, which I created to help my patients enhance the effects of their skin products and skin treatments. Imagine having your very own private one-to-one with me.

Part II will cover the internal component of acne prevention and treatment. You will learn what lifestyle tweaks you can make to align with your goals and aspirations, the relation of food and acne, how to boost your gut health and elimination system to calm the skin down and prevent acne from resurfacing, and how to harmonise your hormones so your skin remains acne-free and wrinkle-free.

Part III will cover the external component of acne prevention and treatment. You will learn acne-friendly skincare routines, and skin ingredients that work - both at home and in the clinic. You will familiarise
yourself with available treatments for scars and pigmentations. I will also teach you how to choose a good facialist or doctor if you need one.

Although it may be tempting to skip chapters, I would recommend you read the book from start to finish. The results will be cumulative as you work through the book.

If you have picked up this book, you probably feel your acne is preventing you from fully excelling or enjoying every aspect of your life. It may even be taking over your life. You’ve probably tried many products or treatments in the past that have only given temporary relief. Or you may be so embarrassed by your acne that you are too scared to even ask for help. I feel for you, and I understand where you’re coming from.

I purposely wrote this book in simple, fun language with lots of illustrations and visuals to make it easier for you to go through in your busy schedule. If you can teach your 12-year-old daughter or niece how to prevent acne, I know I have done my job well. If you are a therapist, practitioner or doctor reading this book, I hope this will give you a new way to look at acne and help your clients/patients treat it holistically, without the side effects of medications.

I invite you to take this journey with me and allow me to share with you a better way to take control of your acne and start loving your skin again.

If you’re ready, let’s get started.

“I believe when a woman is truly in tune with herself and fully confident in her own skin, it will create a positive ripple effect with her children, her partner, her family, her community and the world at large.”

Dr. Terry

Disclaimer:
Please note this book is not intended to replace the advice of your own physician or health care professional. The information you’ll find in The Hormonal Acne Solution is the result of observations I have made in my years of practice treating hundreds of patients and my own experience of
suffering from acne, as well as my review of relevant medical and scientific literature. The literature at times reflects conflicting conclusions and opinions. I have expressed my own opinions and ideas on many of these issues and you, as the reader, should understand that other experts may sometimes disagree.

The Hormonal Acne Solution intends to provide you with helpful informative material on the subject of acne and beautiful skin. However, if you seek personal, medical or health assistance or advice, I would recommend you consult a competent professional, especially if you have existing medical conditions. If you’re planning to stop your medication or change your lifestyle, please consult your doctor to ensure a gradual, safe and sustainable change.

No doctor can guarantee a particular result for anyone (doctors are not God). However, I do believe that you can greatly improve the appearance and health of your skin by learning to work with your acne and making the right choices. It is my hope that what you learn from reading this book will start you on a course of self-discovery, brighter skin and a more beautiful life.
PART I: THE SKIN AND HORMONE CONNECTION
CHAPTER 1: BEAUTY AND THE BEAST

“Nature gives you the face you have at twenty; it is up to you to merit the face you have at fifty”
~ Coco Chanel

According to Yale University School of Medicine, acne is the most common skin disorder in the world! Globally, acne has a lifetime prevalence of over 90% in people of all ages. 80% of adult acne cases occur in women and 50% of these women suffer with acne right into their 40s and even older. Acne commonly develops on the face (99%), the back (60%) and the chest (15%). It is an inflammatory skin disease ranging from mild comedonal forms (blackheads and whiteheads) to severe inflammatory cystic acne of the face.

According to the Acne Academy, 92% of acne sufferers have felt depressed and 14% have had suicidal thoughts.

Most sufferers develop it during teenage years (73%) but in one study, almost 27% of women started their acne woes only after the age of 25. The average age of having the problem is 31. Most adult acne occurs on the cheeks (81%), chin (67%) and jawline (58.3%). The majority of sufferers have inflammatory papules - red, raised bumpy spots (55%) while fewer have a comedonal problem - black or whiteheads (6%). What research has shown is adult acne is more treatment resistant and prone to relapse even after the use of antibiotics and isotretinoin (roaccutane) therapy.

In teenagers, acne is understood to be caused mainly by a spike in the male hormone testosterone. We need this during puberty as it deepens the voice, builds muscle, strengthens the bones and helps us grow taller and bigger. In adults however, it’s mainly caused by an imbalance of hormones. So the levels may be normal but due to an imbalance, there is a tipping over towards the unwanted effects of hormonal skin disruption.
The Sad Truth About Acne

- Acne sufferers have been shown to have higher anxiety compared to control groups, increasing the risk of relationship breakdowns, divorce, depression and stress related diseases e.g. heart disease, diabetes, cancer and Alzheimer’s.
- The prevalence of suicidal thoughts among acne sufferers is comparable to severely affected psoriasis patients.
- People feel embarrassed about their facial appearance so they are socially isolated and more self-conscious than their companions.
- Their relationships with family members may be affected.
- Acne sufferers have a lower chance of being selected for employment.
- Acne has a huge economic impact - reduced productivity, taking sick leave from work, driving up the cost of non-prescriptive drugs, doctors’ visits and treatment of the after-effects.
- Acne can be inherited, the chances being almost 80% in first-degree relatives.
- Acne can be more severe if you have a positive family history of acne.
- In the next decade, the prevalence is predicted to increase by almost 1.5 million new cases in the six major countries (USA, France, Germany, Italy, Spain and UK). Recent research has shown acne increasing prevalence in countries in Asia e.g. Japan, China and Korea. A possible reason could be the modernisation of Asia and a change of lifestyle with the younger generation.

The truth is having acne SUCKS! It messes up your day and as one of my patients tell me: “People look at you and don’t take you seriously, thinking you’re either unhygienic or still a kid!” It doesn’t only create scars externally but leaves scars internally too, which affects happiness, livelihood and future generations.

In order to prevent, take control of and treat your acne, it is important to understand why and how your skin gets acne in the first place. That way, you’ll know how to work with your skin, channeling your energy and wisely opening your purse to the products and treatments that are right for you.
BEAUTIFUL SKIN AND ACNE

In ancient history, acne has a special meaning as it was thought to be a bad omen of spirit possession that Ancient Egyptians used spells and charms to treat. That would be fun if we could do that. People living in the 3\textsuperscript{rd} Century thought the disorder was caused by telling lies and in the 1930s, people believed virgins suffered from the skin problem (known as “chastity pimples”), believing they were unable to get rid of toxins from their bodies. Luckily God is fair and it seems both good and bad people suffer from acne.

It was only in the 14th Century that diet and certain drinks were considered to be a major cause of acne so doctors told patients to avoid spicy foods and strong beverages. Laxatives and radiation treatments were also common methods for removing “chastity pimples”, also known as “chastity scars”.

Fortunately, treatments have been refined throughout the years with modern advances in imaging, biochemistry and physiology. We are fortunate to visually look at the structure of skin and understand its function. You get to know the good, the bad and the ugly of what the skin is capable of.

Before we go into what causes acne, I feel it is important to know what healthy, beautiful skin looks like and how it functions. That way, you will know what to aspire to.

The skin is the biggest and heaviest organ of your body, making up 15\% of your body weight and covering 12-20 square feet. It is made up of 70\% water, 25\% protein and less than 5\% fats. Although the skin is mainly seen as an anatomical casing, I also see it as an extension of our souls, able to receive touch, feel and create bonds without us even saying a word. The artist Vincent van Gogh characterised skin as “fresh from God” - we’re born with skin that beams with light.
The Multi-Tasking Skin

Human skin is truly amazing. Trained as a surgeon who loves anatomy, I am still wowed by how neatly and safely packaged our organs (which keep us alive) are kept within the protective sheath of our skin.

Here is a brief summary of the amazing functions of the skin.

**PROTECTS** - against the damaging effects of the sun, nutrient and water loss (so we don’t evaporate into nothingness), infection, injuries, heat and toxins.

**PACKAGES** - keeps us nice and tight without being a lump of blub.

**SELLS** - we can’t help it but good skin (first impression) sells.

**HEALS** - externally and internally. Touching in a loving way reduces levels of the stress hormone cortisol and increases the levels of a feel-good hormone oxytocin. Massage and gentle caressing also stimulates the parasympathetic system which runs up to the brain and is in charge of Rest and Repair.

**DETOXES** - salt and ammonia through our sweat.

**EXPRESSES** - the skin is like a blank canvas upon which we can “stamp” our individuality e.g. makeup and tattoos. It also shows emotions (good and bad), nutrient deficiency, stress (through allergies, eczema and psoriasis). The skin is a brilliant mirror to our internal health and well-being.

**REGULATES** - temperature through our sweat glands, hair follicles and blood flow to cool down or heat up.

**MANUFACTURES** - a power source for Vitamin D. The skin also produces body scents (the good kind that will attract a mate and the bad kind that will stink the room up).
**IDENTIFIES** - our skin is a genetic makeup of our parents. It gives us our cultural and ethnic background.

**LUBRICATES** - Oil glands produce sebum which allows our skin to slide easily and keeps us waterproof (so we don’t swell up like a sponge whenever we go out in the rain).

**SENSES** - the skin is a large sensory radar, able to sense things before the skin is actually touched. Have you ever had a feeling of goosebumps when you sense déjá vu?

**What is Beautiful Skin?**

What does beautiful skin look like? Have you seen babies’ skin? They are gorgeous, smooth and glowing. However, many of us (even yours truly) have mistreated our skin. If we baby our skin when we’re younger, it will baby us when we are older.

From the surface, beautiful skin should be:-
- Smooth
- Strong
- Firm
- Even-Toned
- Hydrated
- Full
- Disease Free

I see beautiful skin as the perfect night out. Let me explain.

**Do you enjoy dancing?**

I love dancing and throughout my life I have trained in classical ballet, jazz, hip-hop, ballroom dancing, salsa and swing. When I first came to London, I used to go out a lot with my girlfriends, going to dance clubs, enjoying the music and really sweating it out. That was what I considered the perfect night out. In this analogy, if dance clubs are not your thing,
you can always view it as going to your favourite restaurant for a beautiful meal and get-together with a special someone, loving friends or family.

**The skin has 3 main layers**

1. The Outer Epidermis (The dance club)
2. The Middle Dermis (Your room where you get ready for your night out)
3. The Bottom Subcutaneous Tissue (Your home)

Anatomically, beautiful skin should have:

1. Thin, flat, compact Epidermis (like your ideal dance club - not too busy and not too empty).
2. Thick, structured Dermis (like your ideal room - lots of beautiful clothes, shoes, accessories and fun music to get ready to).
3. A firm, plump Subcutaneous Tissue (like your ideal home - safe, “cushy” and warm).
**Perfect Night Out**

Imagine the cells at the bottom of the epidermis like going into the nightclub from the back entrance (for privacy) and leaving through the front door to catch a cab home (top of the skin, where it’s visible).

There are bouncers (immune system) at the door to keep the drunks and thugs out, and to keep the ratio of men and women right in the premises. Now, if people stay too long in the club and the club manager wants to squeeze as many people in as possible (they just can’t turn people away), the place will be crammed and you won’t be able to move much (skin becomes sluggish). If left unattended, fights may break out (acne) and the club is not a happy place.

People stay in the club for a few hours (in skin’s timing, 28 days) and later leave to make room for other people to come into the club. The same goes for the Epidermis.

Before the night, you would be in your room getting ready (dermis) and you want to make sure you have everything in your room to help you look your best: your soft, bouncy bed to get some beauty sleep (collagen and elastin), a bubbly hot bath so you feel nice and clean (natural hydration), an envious selection of clothes, shoes and accessories to be the talk of the crowd (fibroblast, nutrients, hyaluronic acid, blood vessels, hair follicles and oil glands) and your favourite music to dance to (chemical signals to get things grooving in the right rhythm and sequence).

Your room will be in a warm, friendly and safe house (subcutaneous tissue) which you share either with flatmates, siblings or parents. After your perfect night out, you enjoy coming home and are grateful for such a beautiful space to be yourself.

**So what goes wrong in the skin that causes Acne?**

These are the five causes currently understood to cause acne:

1. Excess oil production by sebaceous glands increasing rates of inflammation (the club is too hot and people are irritable,
probably leading to a fight). This can be caused by irritation from excessive use or the use of the wrong skincare products.

2. Irregular or insufficient shedding of dead skin cells (Increased skin keratinisation) - too much build up of dead skin cells, clogging the pores and creating acne (Too many people in the club leading to sluggish movements and possible fights)

3. Hormonal imbalance increasing oil and sweat production, and reducing the skin’s immunity. Hormonal imbalance may also cause the sebum to be stickier and thick, hence impeding the movement out of the pore lining, causing clogs. The main one is the male hormone, Testosterone but recent years have shown there are other hormones that affect the imbalance. (Ratio of women and men are not the same - so many things can happen!)

4. Infection from the Propionibacteriim Acnes (P.Acne) bacteria (The night is spoilt by unruly drunks or violent people).

5. Worsening inflammation from surrounding acne and the immune cascade (fire in the club, causing people to panic, pushing through the exit and bursting out like acne spots). Reactions to cosmetics, specific foods or medicine can also increase inflammation.

Sebum (oil) production in acne is often frowned upon as evil and you may have bought products that dry our your skin completely. Your skin naturally needs sebum, otherwise it will crack and go all wrinkly and dry!

In normal, healthy skin, the sebum actually leaves the pore (a duct unit shared by a hair follicle and an oil gland) and melts on the skin’s surface,
helping to keep the skin surface moist and smooth. When things don’t go well the sebum and dead skin cells plug the pore. This creates a breeding site for bacteria, causing inflammation and swelling, and that’s how a blemish starts to form.

Another possible reason for the cause of acne is having a defective pore. What that means is instead of a smooth channel where the sebum is excreted through, it is kinked, causing a backflow or stagnant sebum which clogs the pores. I believe this could be caused by your genes and how your skin cells is made up.

So now you know what causes the problems, what can you do to control these symptoms? Can you slow down oil production from the source? Can you help your skin produce healthy sebum? Can you prevent skin cells from building up and clogging the pores? How do you inhibit or kill the bacteria that cause the inflammation and redness? Can you repair the defective pore?

Depending on the severity of your acne, I would say Yes! With time and extensive research, treatments were created to target each area above. Depending on your lifestyle and skin condition, some areas have more weight than others, influencing the treatment program you would go through.
HOW SEVERE IS YOUR ACNE?

You have **Mild acne** if you have:
- fewer than 20 whiteheads or blackheads
- fewer than 15 inflamed bumps or
- fewer than 30 total lesions

Mild acne is usually treated with over-the-counter topical products and it may take up to eight weeks to see a significant improvement. You can easily treat mild acne at home with the tips I share with you in this book.

You have **Moderate acne** if you have:
- 20 - 100 whiteheads or blackheads
- 15 - 50 inflamed bumps or
- 30 - 125 total lesions

Moderate acne may need working alongside a doctor. It may take several more weeks to notice an improvement and it’s not uncommon that your acne may appear to get worse before it gets better.

You have **Severe acne** if you have:
- Multiple inflamed cysts and nodules
- Acne lesions turning deep red or purple, often leaving scars.
Severe acne will require a doctor’s visit as soon as possible to minimise scarring. Hopefully with the suggestions I share with you in this book, you will never get to this stage as often prescriptive medications are prescribed for moderate to severe acne. Even if it does, we can often do a medical facial to thoroughly extract the offending pus while applying high frequency and light therapy to reduce the inflammation. There is always a way.

**ACNE VOCABULARY**

**Blackheads** - these are open comedones, where a plug of sebum and dead skin cells get clogged in the hair follicle, darkened by oxidation (reaction of the oil with oxygen). It normally has a “head” or opening on the surface of the skin.

**Whiteheads** - this is a closed comedo, similar to a blackhead but where a piece of skin covers the surface so it avoids oxidation and remains white. There is no opening on the skin.

**Papules** - these are comedones that become inflamed, forming small red or pink bumps on the skin. They may be tender to touch and picking or squeezing them can make the inflammation worse and may lead to scarring. A large number of papules may indicate moderate to severe acne.

**Pustules** - these are like whiteheads but with a red ring around the bump (sign of inflammation). The bump is filled with white or yellow pus. Picking at pustules can cause scars or dark spots to develop on the skin.

**Nodules** - these are large, inflamed bumps that feel firm to touch. They develop deep within the skin and are often painful. Nodules require stronger ingredients and should be treated by a specialist. It often indicates an internal element and if you went to a traditional doctor, you would be prescribed medication for it.

**Cysts** - these are large, pus-filled lesions that look similar to boils. These are painful and should be treated by a skin specialist. If you have nodules and cysts, you are considered to have a more severe form of acne.
ACNE TREATMENTS UP TO NOW

What you see is always easier to treat first than what you don’t, hence traditional treatments are initially focused on reducing excess oil, increasing skin turnover (or renewal), killing the bacteria and reducing the inflammation.

The Ancient Romans led the way as the first civilisation to treat acne. In the times of the Roman Empire it was thought that pores could be unclogged and cleansed by mixing sulphur in mineral baths. This reduced the amount of bacteria-causing acne and dried out the skin of excessive oil. In the 19th century, German biochemists discovered the cell salt therapy which is still practised by many homeopaths around the world.
It wasn’t until the second half of the 20th century that significant progress was made in treating the skin disorder. In the 1920s, benzoyl peroxide was found to kill acne bacteria and became a popular treatment. In the 1950s, antibiotics such as minocycline and tetracycline were used to kill the bacteria. Retin A (now known as Tretinoin) was discovered in the 1960s, which then led to the development of Accutane, an oral form of high strength Vitamin A which aimed to reduce the oil production of the skin glands and skin turnover. It was known as the “Wonder Drug” because it was powerfully effective. During this growth phase, birth control pills were also used to treat severe acne, understood to be caused by excessive male hormone, testosterone.

However, new problems arise with the use of these medications.

I have taken both antibiotics and birth control pills, and I would not want to use either again. I developed thrush and gut issues taking antibiotics and fell into depression and continuous bleeding with the birth control pill. Luckily, I knew about the dangers of Roaccutane and therefore did not choose to take it.

Please take note that I am not anti-medication. I am continually in awe at modern medicine and its amazing ability to treat life-threatening diseases and injuries. It has a role to play, especially in severe cases of acne. However, with the possible side effects, my approach has always been to look at what we can do upstream to facilitate the skin’s repair first before reaching out for the prescription pad. The important thing is for you to educate yourself about what’s possible and work with a practitioner who will listen and is open to working with you holistically to treat your skin.

Below, I weigh up the benefits and problems of these specific prescriptions.

**Antibiotics for Acne**

**Benefits**
1. It kills the P.Acne plus any other bacteria lurking around. It can be used orally or topically.
2. It also helps treat infected cystic acne or skin infection.
Problems
1. It causes gut problems e.g. diarrhoea, nausea and vomiting, resulting in dehydration and malabsorption of nutrients which are needed for skin repair and rejuvenation.
2. It causes inflammation of the lining of the gut (intestine) leading to leaky gut syndrome (I will explain more in future chapters), increasing the risk of infection and food intolerance.
3. It affects the natural ecology of the gut increasing the risk of thrush (candida) and parasite infections.
4. It increases allergic reaction e.g. rashes, hives, anaphylaxis (shock).
5. It leads to antibiotic resistance - common where acne no longer responds, only masking the problem.
6. Antibiotics e.g. tetracycline cause increased sun sensitivity, increasing risk of sunburn, pigmentation and premature aging.

If you choose to use antibiotics, I would only recommend using them for the shortest time possible to treat a severe flare up of your acne. It is recommended you use them for three months but if there is no improvement after six weeks, I would seriously consider stopping it. Again, discuss this with your doctor and share your concerns with them. I have met women who were still taking antibiotics after three years with no response. This only creates antibiotic resistance when you seriously need them for life-threatening diseases or infections.

Birth Control Pills (BCPs) for Acne

Benefits
1. It lowers the male hormone, testosterone reducing oil production and excess skin keratinisation.
2. It is also an effective contraception if used properly.
3. Cancer reduction - 5 years of BCP use is associated with a 90% reduction in female ovarian cancer and also cut thyroid cancers in half.
Problems

1. It artificially affects your hormones, creating other problems e.g. low sex drive, vaginal dryness and low confidence from reduced testosterone.
2. It lowers thyroid hormones which is responsible for your metabolism, fat burning capacity and heat production, leading to possible weight gain, low energy and low mood.
3. It depletes Vitamins B’s - affecting production of important hormones and chemicals in your brain and body for concentration, wellness, happiness and a good night sleep.
4. It delays contraception once you stop it.
5. It doesn’t help PMS.
6. It increases blood clots in your lungs, legs and even brain (by 3 times) leading to strokes, blindness and death. It is the synthetic hormone that is believed to be the culprit and risk is increased if you smoke or have a history of blood clots in your family,
7. It possibly increases the risk of breast cancer (data suggest it is due to the synthetic progestin in the BCP that is causing this)
8. It shrinks your clitoris by 20% (according to Harvard-trained Gynaecologist and hormone specialist Dr. Sara Gottfried.)

In part II of the book, I will share with you natural ways to balance your hormones. If you are using BCP as contraception, I would urge you to think twice before embarking on this hormonal disruptor.

Other non-hormone affecting contraceptives that you could consider include:

- The male condom
- The female condom
- Diaphragm, cap and shield

Please discuss appropriate alternative contraception with a family planning doctor.
Oral Roaccutane or Accutane for Acne

Benefits
1. It is a powerful acne treatment usually left for the severe or resistant cases.
2. It suppresses the activity of the sebaceous glands, reducing the oil.
3. It reduces the size of the glands and the inflammation associated with acne.

Problems
1. It can make your skin all over your body more fragile and sensitive, hence easier to damage during skin treatments e.g. microdermabrasion, waxing and laser treatment.
2. Your skin may be irritated by certain skin product ingredients.
3. Your skin may be very dry, creating cracks around mouth and lips.
4. Your skin will be more sensitive to UV light, increasing risk of burning, pigmentation, premature aging and cancer.
5. It is a teratogen (highly likely to cause birth defects if taken during pregnancy). In the United States, more than 2000 women became pregnant while taking the drug between 1982 and 2003, with most pregnancies ending in abortion or miscarriages. About 160 babies with birth defects were born.
6. It causes inflammatory bowel disease (passing bloody diarrhoea).
7. It decreases activity in specific brain areas, increasing risk of depression, suicidal tendencies and aggressive behaviour. (There have been cases young teenagers committing suicide while on the drug).
8. It increases cholesterol in your blood.
9. It causes pancreatitis (inflammation of the pancreas - the organ behind your stomach which secretes digestive enzymes and insulin to regulate your sugar) and liver damage (hence it requires careful blood monitoring).
10. It may cause damage to your eyes including cataracts, heart attacks, strokes, seizures, blood disorders, hearing impairment, bone problems.
11. In men, it may cause erectile dysfunction.
I am aware that some people’s lives have been changed by Roaccutane for the better and I’m glad they did not suffer any of the side effects. However, for my own practice, I do not prescribe it as the side effects can be debilitating and lethal. It is now a prescribed-only drug and only recommended in severe cases, with proper pre-counselling and regular monitoring of possible side effects.

With the increasing reports of prescription drugs having side effects not only for the women taking them but for their future offspring too, it is no surprise women have changed their minds, preferring to go down the less-medicated route. There you see the rise of laser treatments, light therapy and complementary techniques coming to the rescue.

The industry has come very far, with effective ingredients in skin products to reduce oil, increase skin turnover, reduce inflammation and kill the bacteria. New products, new facial treatments, new routines and new gadgets. This all helps and for some, it is enough.

However, these treatments do not come without their own possible side effects too. Here I will touch upon just two of the possible treatments. In later chapters I will expand on more e.g. using dermal fillers, platelet rich plasma and fat grafts to treat acne scars.

**Chemical Peels for Acne**

I will expand on chemical peels in Chapter 8 but this can be as mild as a home papaya DIY mask to a deep TCA peel (which we all saw in Samantha in Sex and the City - OUCH!). It’s main aim is to create a chemical exfoliation as oppose to a mechanical exfoliation like scrubs. Chemical exfoliation can be gentler, more even and exfoliate deeper layers of the skin.

**Benefits**

1. I love chemical peels. It’s a great treatment if done correctly to enhance your home routine, increasing skin turnover, clearing blackheads, boosting the skin’s natural glow, reducing pigmentation and scars.
2. It is a perfect add-on to any anti-aging, anti-acne and skin rejuvenation program.

Problems
1. If your skin is not prepared before some peels, your skin may react causing pigmentation and possible scarring.
2. Your skin will be sensitive temporarily afterwards, increasing susceptibility to sun damage, causing premature aging, DNA damage and pigmentation.
3. The use of chemical peels is an art. It’s like the paint where your skin is the canvas. Too much may cause damage to the canvas or too little, nothing happens. Working with a good facialist or doctor will be able to advice you if chemical peels is right for you.

Laser Treatment for Acne

A laser is a device that emits a concentrated beam of light, resurfacing the skin with precision.

Benefits
Lasers are a great treatment option for acne scars and pigmentation if used right. There are different types of lasers, depending on the wavelength, depth and extent of resurfacing.

Problems
In the wrong hands, there is risk of scarring, hyperpigmentation and even hypopigmentation. At the time of writing, I do not have any lasers in my practice (they are very expensive!) so I refer them to my colleagues who specialises in lasers.

I love what my industry can do, especially for acne scars and pigmentation. There are different options for different skin types, lifestyles, budgets and severity. However, the focus is still very much on treating the symptom – in this case, the after effects of having acne – rather than treating the source of the acne in the first place.
Have you ever wondered whether cosmeceutical companies, salons and clinics would still make money from selling you their acne treatment programs and anti-acne products if you learned how to control and clear their acne? I don’t think so. Thinking about it, it is ironic that if women did manage to clear their acne naturally, the industry would lose out on a lot of money. The industry makes money by keeping your acne at bay rather than completely getting rid of it. That doesn’t sit very well with me.

SO WHAT IS THE INDUSTRY NOT TELLING US?

The industry is excellent at treating the superficial problem. However, there is little focus in the mainstream public about treatments to treat the hormonal cause of acne - naturally. There is little education on how to prevent acne. How do you stop the spot from coming up in the first place?

You can spend a lot of money and brain-space worrying about your acne but it doesn’t target the source of why it still comes back. Why do you have your breakouts every month? Did you know that obsessing about your spots could make them worse? It’s like dieting, where you’re so focused on the scales and counting calories, you don’t lose as much weight. And if you do, it may not last forever.

Patients come into my clinic and tell me they are using the right products, exfoliating regularly, eating their greens, exercising and taking their supplements. However, they still get breakouts! “WHY?” they often ask in exasperation!

So the cycle continues: they buy a new product, try a new treatment or a new supplement that promises to banish their acne once and for all. How do you prevent it from surfacing in the first place, rather than having to spend crazy money on products and treatments? How do you work together with your skin products and skin treatments to make them work? This I find fascinating.

When I was doing my research on adult acne and hormonal acne, there was a lot of research on the management through the medicated route. Maybe it’s because large pharmaceutical companies have large budgets to
spend on research. There have been recent studies that show acne is rising in countries like Korea, Brazil, China and India, which is not surprising given the modernisation and westernisation of the world. However, there is still a lack of understanding among the general public about what actually causes acne and the options available to prevent, treat and clear it. There have been studies that show specific foods and supplements can help minimise or prevent acne. I take what I have learned from my industry about cosmetics and skin and combine it with what I learn from my hormone- and integrative medical mentors. I hope this book will raise the awareness and pressure to do more research on hormones and acne without medication, if not at least start the conversation to do so.

TAKE THE HORMONAL ACNE QUIZ

Is your acne caused and worsened by your hormones? Tick the statements that most relate to your body at the moment - you can tick as many as you want. Bookmark this page too, as we will come back to it when I share with you the different hormonal imbalances that cause acne. Ask yourself these questions.

Part A

☐ Do you break out when you’re stressed?

☐ Does your acne worsen when you’re stressed?

☐ Do you find it hard to sleep at night?

☐ Do you feel wired but tired?

☐ Do you suffer from increasing sugar cravings?

☐ Do you rely on coffee, soda and energy drinks to get you through the day?

☐ Do you find yourself putting on weight easily?
☐ Do you also suffer from skin sensitivity or eczema?
☐ Do you suffer from recurrent headaches?

**Part B**

☐ Do you suffer from “irritable bowel syndrome”?
☐ Do you suffer from bloating or water retention?
☐ Do you suffer from constipation?
☐ Do you suffer from body odour?
☐ Do you suffer from diarrhoea?
☐ Do you suffer from sugar cravings?

**Part C**

☐ Do you suffer from PMS?
☐ Do you suffer from breakouts at the same time of the month?
☐ Do you have trouble sleeping?
☐ Have you had trouble with fertility?
☐ Do you suffer from mood swings?
☐ Do you suffer from fibroids, ovarian cysts, breast cysts?
☐ Do you have breast tenderness?
☐ Do you suffer from heavy or painful periods?
Part D

☐ Do you have excess facial hair?

☐ Do you have greasy skin?

☐ Do you have large pores?

☐ Do you have greasy hair?

☐ Do you have thinning hair?

☐ Do you suffer from PCOS (Polycystic Ovarian Syndrome)?

If you answered yes to any of the above while experiencing acne, you most probably have hormonal acne.

HORMONAL CRISIS

Modern women are facing an unacknowledged crisis of hormonal imbalance. Unrelieved stress, an ever expanding to-do list, environmental pollution, conflicting ideas about food, genetic influence, increasing obesity and medication use, increasing divorce rates and misinformation about hormones have all contributed to this breakdown. These are all called Hormone Disruptors.

Over twenty million of us suffer from polycystic ovary syndrome (PCOS), fibroids, endometriosis, painful/heavy periods, thyroid, metabolic syndrome (pre-diabetic) and adrenal problems. More women over 35 are taking more anti-depressants, sleeping tablets and stimulating agents than at any time in history, just to keep up with the demands of modern living without dropping the juggling balls.

Hormones affect everything - how greasy or strong your hair is; how dry or oily your skin is; how good your bowel movements are; how well you sleep; how stress-free and smooth your cycles are; how you eat; how you crave; how you love and how you become pregnant. Hormones are responsible for your periods or lack of them, how you fall in or out of
love, how sexy you feel (or why you need the excuse that you have a headache tonight), how you put on weight or lose weight. How you sleep, eat, feel, create and concentrate. Hormones control fertility; the changes you go through during pregnancy; the blues afterwards; how you break out in spots or not; how you feel during your peri-menopause, menopause or post-menopause phase - the good and the bad. Hormones affect how your face will age - the elasticity and firmness of your skin, the fine lines or deep wrinkles you will or will not have, the jowls or defined jawline that frames your face. It’s not an age thing - it’s your hormones. Hormones affect everything!

Hormones are chemical messengers that have specific effects on certain cells of the body. They allow communication between different parts of the body, allowing proper delivery of nourishment and oxygen, repair, metabolism and detoxification. Hormones are like electricity going down phone lines, sending signals across large distances. What happens when you don’t have enough signal? It’s like the reception is bad or the phone line is down. The human body is a beautiful intricate system that works diligently to maintain the balance and harmony between each system. One important way to achieve this balance is through our hormones.

There are about 50+ hormones in your body with 300+ functions. During your lifetime, you will go through different hormonal stages of your life: puberty, fertility, post-pregnancy, peri-menopause, menopause and post-menopause. During these phases, depending on your environment, lifestyle and how you respond to the change, your hormones will either
be in or out of balance. Hormones allow the different systems to talk with one another nicely, through effective communication. When the communication breaks down, divorce between our systems occurs. When your hormones are out of balance, your body will feel it and your skin will show it.

Unfortunately, it doesn’t look like it’s going to get better. Your endocrine system (a family of glands that produce and secrete hormones) is an amazing self-regulator, adjusting itself to restore balance. However, with ongoing “hormone disruptors”, your system becomes numb or will not remember what it was like to be “normal” where your hormonal system is optimised and performing at its peak. Hormone disruptors are part of Skin Disruptors, chemicals that interfere with the normal pathway of hormones that balances your skin’s state and ensures its continuous acne-free glow.

**Skin Disruptor #1 - Toxic Environment and Lifestyle**

Exposure to skin disruptors can occur through air, water, soil, food and consumer products. These disruptors can mimic naturally occurring hormones, potentially causing overproduction or underproduction of actual hormones. Some of the dirtiest disruptors include household cleaning products, dry cleaning chemicals, skincare products, and pesticides. Women working in the cities especially are exposed to polluted air which, when combined with a build up of oil in the glands, can cause growth of bacterium and eruption of acne.

Compounds such as xenoestrogens – including industrial compounds such as polychlorinated biphenyl (PCB) and Bisphenol a (BPA) – are found in common items e.g. foam, oil-based paint, food containers and baby bottles. They have an oestrogenic effect, producing problems of oestrogen dominance e.g. endometriosis, fibroids and breast cancer.

We live in a stressful time - financial worries, career choices, relationship breakups and ill-health. Chronic low-grade anxiety also affects your hormonal system, which regulates digestion, repair, energy, libido and moods. All these are important factors towards reducing inflammation and repairing the skin.
Hormones, even stress hormones, pass from mother to daughter. If your mother experienced anxiety during her life, especially when she was pregnant with you, you would have higher stress hormones, cortisol circulating in your system and, eventually, a lower threshold in dealing with stress - a phenomenon called Adrenal Adaptation. I will explain more in Chapter 4.

**Skin Disruptor #2 - Modern Diet and Modern Food**
The modern diet is confusing. We get conflicting and confusing information on what and when to eat (think low carb diet, no carb diet, high fat, low fat, all juice cleanse, fasting and more). In our quest to be “healthy”, we either don’t eat enough, eat too much, not enough nutrients, too much sugar - all affecting the production of our hormones.

Modern ready-meals also contain many chemicals e.g. antibiotics, added hormones, insecticides which all affect the hormonal system too. Man-made foods create a condition called “Leaky Gut Syndrome” which leads to food intolerance, illness, allergies and acne. In later chapters, I will explain how you can start to repair a leaky gut.

Sugar is also secretly added to many of our modern foods. Apart from being inflammatory, sugar also reduces SHBG (sex-hormone binding globulin), a protein which binds to the male hormone testosterone, rendering it inactive. Hence when you have less SHBG, you have more active testosterone, leading to oilier skin prone to acne.

Milk and all dairy related products have a derivative of an enzyme which stimulates the conversion of testosterone (the male hormone) to DHT (a more potent hormone which targets and increases the activity of the sebum glands). This includes whey protein, which is found in many protein shakes used in fitness, weight loss and slimming meal replacements.

Modern research has also found food affecting the expression of our genes. So if you’re prone to acne due to a positive family history, you can actually suppress the expression of the acne gene by eating specific foods. This is what we call Epigenetics.
Skin Disruptor #3 - Quick Fixes and Skincare Habits
There is no shortage of new skin products on the market. It’s like a roulette game - you try them all and hope one will work. Most of the time, we don’t give the skin product enough chance to work. To be fair, you want to give a product about 6 - 12 weeks before throwing it in the bin. This is because the normal skin cycle takes on average 4-6 weeks, depending on how healthy your skin is and any previous damage; it may take up to 12 weeks to shift.

A classic scenario was when one of my patients whose acne had almost cleared had a panic moment where she was enticed to try some expensive products at her nearby hairdresser’s, who also had a beauty section. After three days of trying the new product (it had a doctor’s name on it too), her skin broke out! Luckily, we calmed it down when she came in for her regular medical facial.

The problem is a lot of products do not do what they say on the label. Most are too rich and actually clog the pores, worsening the breakout.

One thing I learned from one of my mentors, Dr. Zein Obagi, key dermatologist from Beverley Hills: if you put normal moisturiser on your skin, it only soaks into the top layer (epidermis), sending a signal to your dermis below that it has enough moisture, hence the dermis stops producing its natural hydration, creating a dry environment. Then your sebum (oil) kicks in to take over and suddenly your skin becomes combination. Sometimes it’s dry and sometimes it’s oily. You’re not sure which cream to buy - an oil control or a moisturising one. Don’t worry if you are unsure: in Part III, I will share with you an exercise called Skin Fasting, which reboots your skin’s natural hydrating and repair mechanism. Skin should be hydrated and plump - period!

We can also get over-zealous with our skincare routines. Double or triple cleansing. Wearing heavy makeup. When and how we clean our makeup. All this may exacerbate breakouts. I will share with you what I know works in Part III.
Skin Disruptor #4 - Overuse of Antibiotics and Medication

Unfortunately we are a generation of pill poppers. The medicated type. Doctors dish out antibiotics like sweets and prescribe antidepressants and sleeping tablets like there’s no tomorrow. It’s not the doctor’s fault because that’s what we were trained to do in medical school - to treat the extreme. When we get the grey areas, we just use what we know works.... sometimes, too much of it too.

Increased use of antibiotics when you were younger may have increased gut dysfunction e.g. inflamed gut lining or candida infection, which affects nutrient absorption and causes inefficient elimination of toxins from the body. The skin is the last organ in the elimination group, hence if the gut is not functioning optimally, it will expel through the skin in the form of acne, psoriasis and eczema.

Certain medications e.g. corticosteroids, lithium, anticonvulsants, barbiturates, androgenic steroids, DHEA, and medications that contain bromides or iodides can also cause acne. Lithium is prescribed for bipolar disorder. Some people take DHEA supplements as an anti-aging hormone. As for bromides or iodides, they may be found in sedatives or cough medicines.

By being aware of the Hormone and Skin Disruptors that may be present in your life, you’ll be on your way to clearing your acne for good.

THE GOOD NEWS AND THE BAD NEWS

The good news is you can definitely learn to balance your hormones naturally, take control of your acne and love your skin again. Without any antibiotics, birth control pills and roaccutane. I have done it, and my patients have done it too.

The bad news is it’s not going to be easy. It will take time and conscious effort on your part. It will mean changing some parts of your current lifestyle, how and what you eat and how you go about your day. It will mean getting to know yourself - the good, the bad and the ugly. It will mean reflecting inwards and questioning what your skin is telling you.
You will be tempted when you see a new advertisement or your favourite celebrity endorsing a new product. You will be tempted as clinics and beauty salons offer their treatments at ridiculous prices.

I have been tempted too. I would ignore the cues from my skin and just spend on more products that would fix the problem. It’s like applying paint to a cracked wall. Soon the cracks will show again. You need to fix the wall first, one layer at a time.

I have tried just using products and treatments to treat acne. And I have tried just using hormonal rebalancing techniques. Both are short lived. It’s not that one or the other is better but how you can marry the two and enhance the results. This is my wish for you.

By ignoring the hormonal cues from your skin, you may be missing clues that your body is trying to warn you of:

- Adrenal fatigue and burnout
- Weight gain, diabetes and heart disease
- Gynaecological problems
- Depression, anxiety and Alzheimer’s
- Skin sensitivity, scarring and pigmentation
- Mood swings, unproductivity and loss of joy in life

If you didn’t make a change, could this happen to you in the near future?

**PLEASE NOTE:** IF YOU ARE UNWILLING TO MAKE CHANGES FOR THE BETTERMENT OF YOUR SKIN AND HEALTH AND ARE LOOKING FOR A QUICK FIX, THEN THIS BOOK IS NOT RIGHT FOR YOU. PUT DOWN THIS BOOK AND PASS IT ON TO SOMEONE WHO WILL BENEFIT FROM IT.

IF YOU’RE READY FOR A NEW WAY, THEN READ ON.
A NEW WORLD HAS ARRIVED

I am excited to share with you this new approach to skincare by first focusing on hormonal homeostasis/balance. Our skin changes according to fluctuations in our hormones – so why shouldn’t we use the right skin care according to those changes? By balancing our hormones, we minimise the change in our skin and optimise it for beneficial uptake of ingredients that repair and rejuvenate.

In order to achieve this balance, we have to work towards optimizing:

- Hormone Production/Storage
- Hormone Transportation
- Hormone Activation
- Hormone Cell Signalling
- Hormone Detoxification
- Hormone Elimination

Don’t feel overwhelmed by this. Just know that the step-by-step system that I will lay out for you will address all these phases in sequence so you don’t have to think about it.

In essence, the system focuses internally on:
1. Reducing inflammation
2. Balancing your sugars
3. Balancing your hormones

While working externally on:
1. Raising your skin awareness
2. Working with the right skin ingredients
3. Choosing the appropriate skin treatments if necessary

As you work through each internal phase, your hormones will naturally balance. The hormonal system works in cycles (chronobiology or circadian rhythm) - it changes according to the day, the sun and moon, and to our monthly cycles. In the next chapter, I will talk about the different hormonal groups that are important for beautiful skin.
Can you imagine your skin behaving according to the natural rhythm of your hormones - changing smoothly, effortlessly and with grace? Your skin will be happy and your acne will be cleared.

Through this new way, you as the consumer will be in control. You will be able to clear your acne naturally, without expensive products and treatments from the beauty salons and clinics. In this new world therapists, doctors and practitioners who work alongside your hormonal system, enhancing it rather than ignoring it, will be your team mates. Companies that inform, educate, support and encourage women like you in the fight against acne, and towards better health and a better life, will be winners in this new world.

Through this new way, companies and clinics who are just interested in selling you different products and treatments will be losing out.

I’m excited for this new world and hope you are too.

It is my mission to help as many women as I can to feel happy and confident about who they are. To reflect the beautiful skin that is truly them, and not be over-shadowed by acne. I have spent many hours and much energy and money on learning, experiencing and making sense of how the skin reflects our internal environment. I healed myself without knowing how, and when I went to the USA to study Functional Medicine and Hormonal Rebalancing, it all made sense. I am fortunate to be in this industry of cosmetic and aesthetics, where I can combine what I know about skin with what I have learned and will continue to learn about total health.

In the next chapter, I will share with you the amazing discovery I made about hormones and how they cause acne.
Summary of Chapter 1

Hormonal acne is on the rise and we have to treat the source to truly clear it.

Hormonal acne is typically more resistant to traditional therapy.

Hormone Disruptors are a part of Skin Disruptors and the four main areas are:
- Toxic environment and lifestyle
- Modern diet and modern food
- Quick fixes and skincare habits
- Overuse of antibiotics and medication

Your skin is trying to tell you something when it breaks out in acne.

To treat hormonal acne, we need to focus internally on:
- Reducing inflammation
- Balancing your sugars
- Balancing your hormones

Questions to ask yourself

1. What do you think is causing your acne?
2. What hormone disruptor do you feel you are exposed to?
3. How do you want to treat your acne?
CHAPTER 2: IF YOUR SKIN COULD TALK

“Skin. The most beautiful wrapping of the most precious gift in the world, Life. Take good care of it because you only have it once.”

Dr. Terry

THE STORY OF MY SKIN AND ME

People often meet me and compliment me on my skin. I hardly ever wear foundation and use minimal products. I am often passed off as a 25-year-old when in effect I’m almost 10 years older at the time of writing this book. I know when my skin will break out and when it will behave itself.

But that never used to be the case.

Happy times....

I grew up in a small town in Malaysia, the eldest child of a family of five. My parents met when they were 16 years old and it was love at first sight. My father was the third son of nine children and my mother was the ninth child of fourteen. Hence the big family. My father was very poor when he met my mum, because my grandfather had gone bankrupt through a gambling habit. My mother was educated and was the first female generation in her family to go to school. They built their life together, my dad having to work two or three jobs at a time since he could not afford to go to university, and they were madly in love. My mum used to tell me stories of their courtship and I grew up dreaming about having the “perfect” marriage like my parents had. Even though we were not wealthy, we were happy. I remember when I was little, my dad would bring back a big bucket of sand from the mines he used to work at for us to play with. My brother and I loved our sandpits and had many fun afternoons exercising our imaginations.
We lived in a small house; the four older children shared a room while the baby slept in the master bedroom. I loved days playing camping in our room, making make-shift tents with ropes tied to the door and window with bed sheets hung over the line. We would read stories and scream when someone came into the room as it would have collapsed our beautiful tent. I had this dreamy idea that I wanted my future marriage to be just like my parents’... so in love and happy.

Growing up is not easy....

I was a dark, chubby child. I never saw it as a problem and loved spending many afternoons in the sun, in the pool. I was practically dark chocolate! In the East this was considered ugly. I remember an incident when I was six and I had a huge fight with my father. He had little respect for fat people as he equates them with being lazy. He would criticise me for being too fat and tell me that I should be doing something to change or else I would not be beautiful. Something snapped, and I threw a HUGE – and I mean HUGE – screaming fit and told him that he did not love me! My mother had to calm me down and my father did not speak to me for a few days. The silence was painful. Did he really not love me? The thought kept swimming around my head. I later gave my father a letter in which I apologised for letting my anger get the better of me. To this day, I still don’t know if he read it. To this day, I have a-built-in fear that being fat means not being loved. It can be a vicious cycle.

Later, I developed an eating disorder to fit in. I lived on porridge, salads and chili sauce. I took laxatives and slimming teas to go with my meals. I threw up my food when no one was looking. I slowly became an exercise freak. My skin was oily and broke out in terrible acne. I found fat globules just under my skin, which I now know were because of my poor eating habits. I used to pick at them with needles and knives. I hated my skin and just wanted to cut it open! I couldn’t control the critical voices I heard in my head.

Childhood taunts did not help either. When I was 8 years old I was sexually harassed in a department store. I felt even more dirty, shameful and disgusted with myself - I couldn’t look at myself in the mirror. I was bullied in high school for being a geek. My eating disorder and self-abuse
carried on. I developed stomach ulcers and often went to bed with stomach cramps. However, in a strange way, I felt in control. I was a straight A student, participated in sports, competed in track events, became a prefect and captain of the cheerleading team and debating team – all to prove to my friends and to myself that I could do it. I loved the new-found freedom. And when things didn’t go my way, I would blame this “fat, ugly” kid inside me and cause serious harm.

**Working hard to avoid the pain....**

In 1997 something happened – a proud moment in my life: I was accepted by one of the top medical schools in London.

It also was the worst time of my life - my mother passed away.

Three weeks after I started university in London my mother contracted a viral flu that caused heart failure and she died 24 hours after being admitted to hospital. I never had a chance to say goodbye. She was 46 years old at that time, the same age as Princess Diana when she died. She left my father a single parent to five children. I was 19 years old and my youngest brother was 9.

My mother had terrible skin problems - acne, scars, psoriasis, eczema, stretch marks and varicose veins. She would be a cosmetic clinic’s dream patient but to me she was perfect. It was only after she passed away that I learned how her confidence had been affected by her skin problems. I found out how worried she was that my father would leave her for another woman. I realised where my insecurities had come from.

1997 was also the year of the SEA financial crisis - the stock market crashed and many businesses went bankrupt. Suicide was at an all-time high and many overseas students had to pack their bags and return home. I worked part time while studying medicine to help pay the expensive fees and went home to Malaysia every summer holiday when most students were backpacking around the world.

I grew up in my twenties without a female role model. I had to grow up pretty quickly and I had to take my needs out of the picture for a while.
As the doting daughter, I studied hard to graduate. My father remarried and the family was complete again. I furthered my training in surgery but then things started to take an interesting turn.

**When life doesn’t make any sense any more....**

In my mid-twenties, I broke up with my partner of six years, to whom I was about to get married. I went through many failed relationships afterwards, trying to recapture what I thought I needed - love and approval from a man. I failed the final part of my surgical exams three times. The visa system changed and I was fighting a battle with the Home Office to stay in the UK as a recognised trained doctor. I was scared! My life was in pieces. My skin played up again in rashes and breakouts. I broke down! I realised I needed to leave everything and make a fresh start.

So I left. Inspired by my late mother, I left hospital medicine to embark in a career in cosmetic medicine, using the transferrable skills from my surgical training days.

While seeing clients who came to me for treatment, I realised that often it was not just a simple fix. The worried wrinkle was an external expression of what was going on inside. The breakouts they had were a sign that something in their life was breaking down. Starting out in the industry, I would spend up to an hour with a client, learning about her life, her worries and her aspirations. I felt inspired to do more for my patients. I knew I could help them by providing a range of services that could address anything from having a younger body to a younger mind. I didn’t realise how closely linked body and mind were.

As I put my past behind me and looked to serving others, I thought I had the winning formula. Being in the cosmetic industry, we had to look good. Our patients’ eyes were on us and we tried every product on the market to see what worked. For a brief moment my skin was beautiful again.

Then I met a man whom I thought was the one! Very confident, a wicked smile, a great sense of humour. He made me feel special. Could he be the knight in shining armour that I had been looking for? My hard exterior from the hurt slowly melted and I was in love again.
Cracks started showing six months into the relationship but even though the warning signs were there, I did not trust my instinct enough to leave. I was working late nights building my business and he would question why I needed to work so hard. He was never 100% supportive of my aspirations and even doubted I could do it. He would compare me with the pretty girls walking down the street. He took joy in making me feel small. I knew the relationship was toxic but I couldn’t leave. I was working late nights building my business and he would question why I needed to work so hard. He was never 100% supportive of my aspirations and even doubted I could do it. He would compare me with the pretty girls walking down the street. He took joy in making me feel small. I knew the relationship was toxic but I couldn’t leave. I was also diagnosed with pre-cervical cancer and had to undergo treatment. I was terrified and all my worries started coming to the surface. My skin broke out again and the creams didn’t work. I felt defective. I began abusing myself again – not by means of starvation of food, but by denying myself my own happiness.

Then in August 2009 it ended. I caught him with another woman. It felt like a dagger shoved through my heart and a kick in the pit of my stomach! I didn’t know whether to shout in anger or cry in despair. All I can remember was I was shocked, speechless – as if a friend had betrayed me!

I did not cry, I was just angry! Angry at him, angry at myself for being so stupid for letting myself believe everything he said, angry for allowing him to get to me and making me feel small!

The healing began....

It took me three years to forgive myself for the destructive relationship I had with him. It took me three years to get my skin right again. I took some time off work and travelled to India and America, trying to find my way again. I learned about new ways of Integrative Functional Medicine, Spirituality, Quantum Physics and the Law of Attraction. I learned my skin was just expressing the trauma that I was going through. My acne and breakouts were indicators that my internal health, my internal hormones, my guiding torches were not aligned. At first it was very difficult to accept everything that had happened in my life but I realised I had to forgive myself for what I had done to myself.

Fast forward to the present, and most people would say I have the perfect life now. I have a loving relationship with a man who is gorgeous, shares
my dreams and encourages me to be as successful as I can be. I am also surrounded by brilliant friends and family. I want to contribute to the wider good of the world. I love what I do, helping women feel confident in their skin again. Food tastes better now, I don’t take things too seriously and I laugh every day. I’m not writing this to brag, I just want to highlight how it fell into place once I decided to take responsibility for my life and stopped blaming everyone else.

I went through a discovery process of really seeing my own vulnerability, and fully accepting and making peace with myself. I allowed a beautiful man into my life, allowed myself to love again, forgave my father and finally let go of my mum.

We know when we have more stress in our lives our skin breaks out, looks more wrinkly and tired. There is an explanation for this, and it comes down to hormones.

In the next section, I will explain how hormones work and what happens when they turn bad.

THE HAPPY HORMONE FAMILY

From my observations, I have realised there are a few important hormones that may cause acne. My struggle with my skin problems was just one way my hormonal story played out. In this simple diagram below, I share with you the communication between the different elements and hormones.
Before going through the specific hormones, it is important to understand the role each hormone group plays.

Imagine the hormonal system as a village, with the residents all working and living happily with one another. When I see patients for hormonal imbalance issues I use this analogy to explain how hormones work together.

The characters involved would be:

- The King - the Brain
- The Hunter or Warrior - the Stress Group
- The funny Jester - the Blood Sugar Group
- The handy Builders - the Metabolic Group / Thyroid Hormone
- The careful Cook - the Elimination Group
- The Seductress, Mother and Carer - the Reproductive Group
When hormones are happy

In a simplified way, your King (brain) is where the control tower is. It controls which hormones are released and when. Your brain is fueled by glucose (or sugar), delivered by the hormone insulin (the Jester, who has to taste the food first to see if it’s poisoned).

When your brain is hungry, it will send out more hunters to hunt for food, raising your cortisol or stress hormones. This will raise sugar levels, and insulin (the Jester) is in charge of delivering that food to the King. If the Jester decides to play a practical joke on the King (e.g. insulin resistance), the King will not be fed and will stay hungry. The cycle continues: more hunters will be sent out and you will crave sugar.

Your King (brain) is also in charge of sending signals to other endocrine glands (where your hormones are produced) depending on its natural cycle.

For example, when the cold sets in and the King knows the village needs more heat, it sends a message to the handy Builders (the Metabolic Group) to start cranking up the heat and build shelter and fire.

When the mood sets in, the King sends a message to the Seductress so he can be pleasured and be primed to reproduce. When it is hungry, it sends
for the Cook to prepare a sumptuous meal. The Cook has to make sure the elimination system in the village is working well so more food can be cooked in a clean environment and the nutrients are well absorbed.

This harmonious relationship is governed by feedback loops so you don’t release too many or too few hormones in your system.

These hormones then swim to your cells where they attach to a receptor (like a key and a lock), executing their function. If the key fits the lock, execution happens smoothly e.g. when you face danger, your stress hormone cortisol triggers a cascade to generate a burst of glucose which is utilised to focus better and run faster. When it doesn’t e.g. insulin resistance (the key doesn’t fit), sugar levels in your blood rise, causing inflammation and reducing SHBG, leading to acne.

Most hormones are made in the endocrine glands from a precursor hormone, also known as a pre-hormone. It’s the body’s efficient way of producing the hormones you most need on the go, without starting from scratch. Many of the common hormones in the body are originally derived from cholesterol, which your body turns into pregnenolone. Pregnenolone is the pre-hormone from which other hormones are made. Cultivating a diet of good fats and optimised nutrients will support the normal production of hormones in the right ratio.
HORMONES GONE BAD

In general, there are five main hormonal imbalances that cause acne. Please note, this is a simplistic view of each hormone mentioned. The hormonal web is an intricate, complicated and complementary system with each hormone affecting the others. You could actually write a book on each hormonal imbalance.

The five main hormonal imbalances are:

1. High Cortisol
2. High Testosterone
3. Increased Insulin
4. High Oestrogen (known as Oestrogen Dominance) with or without Low Progesterone
5. Increased Growth Hormone

Your body naturally works to keep the hormones in balance and in equilibrium. However, due to prolonged hormone disruptors or skin disruptors, they can go out of balance.

Below I share with you in more detail what happens when these hormones go bad. Go back to your questionnaire in the previous chapter - next to the common imbalances below I’ve included the relevant parts that you would have ticked. In later chapters, I will explain how to balance them.

High Cortisol
(If you ticked 3 or more in Part A of the Questionnaire)

Cortisol is the main hormone in the Hypothalamic-Pituitary-Adrenal (HPA) axis. It’s your body’s response to stress. Like the hunter, you need it to protect you. Like the warrior, you need it to wake up, stay focused and on task, to lead, to get the job done.

When danger is near (whether actual, perceived or anticipated), the hypothalamus in your brain sends a signal to the pituitary gland just beneath your brain to secrete ACTH (adrenocorticotropic hormone) – like a call centre picking up the danger of a fire. This surge in ACTH (like
the volume in the PA system) then signals your adrenals just above your kidneys (your firehouse captain) to produce cortisol and adrenaline (firemen) to deal with the fire.

High cortisol raises your blood sugar and blood pressure, ready to be used in the brain and muscles to focus hard and run faster. When the danger subsides, the call centre (hypothalamus) gets the message the body is no longer on fire, and the firehouse captain slowly redraws its firemen before they cause too much damage. This works like clockwork when you’re running after a burglar or saving a child from moving traffic. However, with modern life, we have an unrelenting feeling of danger or anxiety e.g. bullying in the workplace, financial worries, relationship breakdown or feelings of inadequacy which can turn a “savior fireman” to the “death hormone”, causing havoc in it’s path.

High cortisol also reduces your digestion and detoxification. When you’re “running for your life”, blood shunts away from your gut and reproductive organs, leading to reduced absorption of nutrients and increased build up of toxins (grey skin and dark circles under the eyes). Blood vessels constrict so less blood will go to the skin, hence less healing and less oxygenation leading to pale and yellow skin.

When the firemen are in constant hyper-alert mode (fight and flight), they will soon damage things in their path with their powerful water hoses and
axes. In preparation, your sweat glands’ secretion increases, increasing oil production and acne. Your skin cells start to break down and not only break out in acne, but also eczema, psoriasis and premature aging.

Cortisol can increase in any stressful situation, be it physical, mental or emotional. Physically, one of the biggest culprits to increased cortisol is chronic inflammation and sugar imbalance.

A study conducted by the Stanford University School of Medicine showed that the stress of exams caused students’ acne to flare up, and that the more stressed the students reported being, the worse the effect on their skin.

To check your levels, you can ask your doctor for a morning fasting blood cortisol level. More accurately, in my clinic I have my patients do an Adrenal Stress Profile test where you take four salivary test throughout the day to accurately monitor your circadian (daily) cortisol rhythm. You can also order an adrenal stress test through a nutritionist, a naturopath and an integrative practitioner.

A note about investigation - depending on the labs, they provide different reference ranges. It is important to look at your results not in isolation but in combination with your symptoms, state of health and lifestyle.

**High Testosterone**  
*(If you ticked 2 or more in Part D of the Questionnaire)*

Testosterone is part of the androgen family. This group of hormones strongly affect your mood, confidence and libido. Even though it is a male hormone, we females do need a small level of it. Testosterone is the sexy and confident hormone - it’s important to drive your ambition and having a good sex drive.

It’s like the Lynx Effect. (If you are not from the UK, the Lynx Effect is a marketing campaign for a men’s deodorant. The message is that if you use their deodorant, you would have the Lynx Effect, where a normal-looking guy would have Victoria’s Secret model-type angels falling down the sky and fighting over him. That’s the Lynx Effect.) If you had a little,
it would be perfect but if you had too much, your skin would be oily, you’d break out in spots, and you would start to grow facial hair but lose hair from your head.

Women with too much testosterone also have deeper voices, more pubic and facial hair, and a more muscular build than women who have normal levels. In some cases it causes balding, a full beard and enlargement of the clitoris.

Testosterone is produced by your ovaries and adrenals. Hence when you’re prescribed birth control pills which wipe out the natural production of your ovaries, you also wipe out your testosterone, leading you to excellent contraception and improved acne but low libido and feeling depressed. However, as seen throughout this book, testosterone is not the only hormone that can cause acne and so for some women, BCP have no effect or make things worse.

Increased testosterone can occur through medication, polycystic ovary syndrome (PCOS), chronic stress (your adrenal glands go into overdrive producing excess cortisol and androgens), excess body fat (insulin resistance), too much sugar (reduced SHBG) or, rarely, an androgen-secreting tumour in the ovary.

More potent is the conversion of testosterone into Di-hydrotestesterone (DHT) via an enzyme called 5-alpha reductase. Even if testosterone levels were normal but conversion was higher, your skin would suffer from acne. DHT and 5-alpha reductase is increased through milk and dairy related products (they actually contain derivatives of it), especially in whey protein used in body building, fitness and slimming replacement meals.

Now some women only have acne well after their menopause. I believe this is due to the relatively higher levels of testosterone compared to the female hormones oestrogen and progesterone, which are typically very low post-menopause. The low oestrogen also renders the skin more sensitive and irritable, causing inflammation and possible breakouts.

To check your testosterone levels, ask your doctor to check Total and Free Testosterone. It is the Free Testosterone that you are mainly
interested in as this is the active hormone, unbounded by SHBG (sex-hormone binding globulin).

**Increased Insulin**
*(If you checked 2 or more in Part B of the Questionnaire)*

Insulin is produced by the pancreas, part of the digestive system. It allows our body’s cells to absorb glucose from the blood to use as fuel. This is particularly important for the brain, muscles and liver. This stops the body from using fat or muscle protein as a source of energy.

When we eat too much sugar or starchy carbohydrates or eat too fast, our blood glucose level spikes up and the pancreas secretes insulin to balance the levels. Too much glucose will cause inflammation and damage of cells through a process called glycation.

Similarly to androgens (male hormones e.g. testosterone), it is the spike of insulin which stimulates excess production of oil which then binds to dead cells in the pore, creating a plug ready for infection by P.Acne and inflammation into cystic acne.

Insulin increases the expression of growth hormone receptors (remember the lock and key). This increased expression stimulates the production of insulin-like growth factor 1 (IGF-1) another hormone produced mainly by the liver which acts on the growth hormone receptor, signalling growth and proliferation of the cell, in this case the oil gland.

Insulin and IGF-1 is found in milk and dairy products, strengthening the link between milk, sugar and acne. The famous Nurses’ Health Study examining health habits of 47,000 nurses found that those who drank more milk as teenagers had much higher rates of severe acne than those who had little or no milk as teenagers. If you think it is the fat in milk, think again.

It was actually skinned milk that had the strongest risk for acne. In other studies of over 10,000 boys and girls aged 9 to 15, there was a direct link between the amount of milk consumed and the severity of acne.
It appears that it is not just the anabolic or sex hormones in milk that cause problems but milk’s ability to stimulate insulin production. It actually may be the lactose or milk sugar in milk that acts more like a sugary soft drink than an protein-rich egg. Drinking a glass of milk can spike insulin levels by 300%.

Chronic high insulin may lead to insulin resistance, when the receptors of target cells get numb and glucose is no longer delivered effectively into the brain, muscles and liver. It is then stored in fat instead. Insulin resistance is also seen in PCOS and obesity. In modern medicine, insulin resistance is also known as Metabolic Syndrome and is linked to diabetes and heart disease.

Remember the story of the Jester and the King. When there is too much sugar/food, your Jester doesn’t know what to do with it. It’s too full to taste any more so to avoid missing a poisoned meal, it throws it into a hideaway shed (i.e. stored in fat cells).

This is a phenomenon called Insulin Resistance, a very common imbalance especially in the western diet. Your insulin no longer responds as it used to so your brain is no longer receiving fuel even though you’re eating a lot.
The brain then feels irritable and sends out your Warriors or Hunters, increasing your cortisol levels, leaving you craving more sugar while your insulin is storing the sugars in your fat cells. Hence why some people seem to put on more weight even if they don’t eat very much. Your insulin is programmed to turn the food you eat into fat.

To check if you may have insulin resistance, check if you have:

- A waist size of 35 inches or more in women (40 inches or more in men)
- Low HDL or “good” cholesterol level (less than 40mg/dL for men and 50mg/dL for women)
- High blood pressure of 130/85 or higher, or being treated for high blood pressure

The following diagnostic tests could be helpful:

- Fasting blood glucose levels of 100mg/dL or above, or being treated for diabetes.
- Oral Glucose Tolerance Test (OGTT) which measures blood glucose after you have not eaten for at least eight hours and two hours after you drink a sweet liquid provided by a health care provider or laboratory. In a healthy person, blood glucose should be less than 140mg/dL. A blood glucose level between 140 and 199 mg/dL indicates an impaired glucose tolerance (pre-diabetes). Anything over is a diagnosis of diabetes.
- A1C test. Sometimes called hemoglobin A1c, HbA1c, or glycohemoglobin test, this test reflects average blood glucose levels over the past three months. An A1C of 5.7-6.4% indicates prediabetes.
- Fasting blood insulin level. In a healthy person who has fasted for six to eight hours (usually overnight), the insulin level is approximately 60pmol/L. A level higher than this is considered indicative of insulin resistance.
High Oestrogen and Low Progesterone
(If you ticked 3 or more in Part C of the Questionnaire)

Oestrogen is one of the most important hormones of the reproductive group. It is what makes us female. It gives you hips and breasts, increasing your voluptuousness and glowing skin. Internally, it regulates your mood, sleep and appetite, being nature’s natural Prozac. Oestrogen is not just one hormone but more than 300. It has good versions and bad versions. Good versions protect your heart, brain and breasts. Bad versions can lead to cancer, heart disease and depression.

Oestrogen is secreted from our ovaries during the first half of our cycle, thickening the lining of the uterus, ready to protect a developing foetus. If contraception does not occur, the lining is shed every 28 days as your period. If contraception does occur, oestrogen and progesterone (its sister hormone) thicken and stabilise the lining for the fertilised egg to implant and grow.

I call oestrogen your “Diva Hormone”. In the right levels, it is flirtatious, friendly and sociable. It maintains your bones - strong, dense and flexible. It maintains your skin - hydrated, smooth and well-supported by collagen. It keeps your joints, vagina, blood vessels and brain well lubricated. In the right ratios, it is forgiving and loving.
Oestrogen is balanced by her best friend, progesterone. I call progesterone the “Calming Hormone”. It stabilises your moods, helps reduce cravings, helps you sleep better, feel calmer and especially calms your skin. As partners, they keep you in balance. Oestrogen thickens your uterus lining, your progesterone stabilises it. Oestrogen stimulates your breast cells to grow, progesterone prevents cysts from developing. Oestrogen retains water, progesterone is a natural diuretic.

Progesterone peaks in the second half of your cycle from the Corpus Luteum after ovulation. It prepares you for implantation, making you feel broody and wanting to nest.

If you have too much Oestrogen, you can become a proper DIVA - you may act and feel like a “B****”. In normal circumstances when you take your hormone levels at day 21 of your cycle (day 1 being your first day of your period), the ratio of progesterone to oestrogen should be between 100 to 500, and optimally 300. If your ratio is low (suggesting either progesterone is low or oestrogen is high), you have a high likelihood of having Oestrogen Dominance.

During this dominance, you suffer from breast tenderness, painful periods, heavy periods, probable endometriosis, breast cysts, water retention, bloating, irritability and worse anxiety or depression. You may
experience more migraines, your face is redder than usual, you feel emotional and you even break out in acne.

It is common to be Oestrogen Dominant between the ages of 35 and 50. I believe it is due to:

**Exposure to Xenoestrogen**
Xenoestrogens are chemicals that mimic oestrogen but are artificial. They come from artificial chemicals that you are exposed to every day. There are about 700 of them that can be found in the most innocent of places e.g. toothpaste, deodorant, plastic bottles, food preservatives, sunscreen, the lining of food cans and some skin products.

**Excessive Stress**
The pathway to producing cortisol, oestrogen and progesterone originates from the same source - cholesterol. They share the same initial pathway. Therefore chronic cortisol production will divert the body’s natural production of oestrogen and progesterone, in a process called Cortisol Steal (cortisol is stealing from the female hormones). This could then lead to irregular periods and irritability (low good oestrogen), breakouts and lack of sleep (low progesterone).

**Diminished Ovarian Reserves**
Women are born with one to two million eggs in their ovaries, but by the time you reach perimenopause (any time between the ages of 35 - 50), you are down to one to three thousand. As your control system senses your eggs are running out, it makes a mad dash, encouraging as many eggs to ovulate before it’s too late to have a baby. This is particularly evident in modern life where more women are choosing to have children later due to their career progression.

**Weight Gain and Obesity**
Fat cells also produce oestrogen, which is one of the reasons why women who are obese (gaining more than 20 pounds between ages 18 and 50) double their risk of postmenopausal breast cancer.

As often seen with insulin resistance, weight gain also increases oestrogen. It’s a vicious cycle as higher insulin creates higher oestrogen, which makes
you gain weight, which leads to making more oestrogen. Obesity also lowers sex hormone-binding globulin (SHBG) which raises free oestrogen and testosterone in the blood, leading to more inflammation and increase oil production and acne.

**Modern Diet**
Alcohol consumption raises oestrogen levels and slows down fat burning. In postmenopausal women, drinking one or two servings of alcohol raises estrone and DHEAS, another hormone that can be converted into oestrogen and testosterone.

Specific nutritional deficiencies can also lead to excess oestrogen. Vitamin B12, folate, copper, zinc and methionine (an amino acid) are important nutrients that can help produce more “good” oestrogen and decrease the production of “bad” oestrogen. If you suspect that you may be suffering from oestrogen dominance, it is worth asking your doctor for a blood test to measure your magnesium, zinc, copper, Vitamin B12 and folate.

To test your oestrogen and progesterone levels, ask your doctor to take a blood test on Day 21 of your cycle (Day 1 being the first day of your period) if you’re still cycling or any time if you’re post-menopause. If you are irregular and seek more accuracy, you can take a test called Rhythm Plus from Genova Diagnostics where you take 12 salivary tests throughout the month on specific days to look at your levels throughout the cycle. You also want to check your FSH and LH levels, the stimulating hormone arising from the brain.

**Oestrogen Dominance often comes with low progesterone.**

Specific causes for low progesterone are:

1. Aging - Ovarian reserves diminishing, hence we become less tolerant as we grow older. Remember progesterone is the calming best friend.
2. Stress - Reducing the production of progesterone through Cortisol Steal
3. Little or no ovulation - Progesterone is produced from the corpus luteum after ovulation, hence if there is no ovulation, there is no
progesterone produced. This can occur through extreme exercise, medication or even birth control pills.

4. Low thyroid - Remember the handy builder in your hormonal village? Thyroid is needed to make pregnenolone from cholesterol, and then progesterone. If your thyroid is low, you will not produce enough progesterone. If your progesterone is low, you will feel more irritable, raising your stress hormone levels and increasing your sugar intake, which then lowers your thyroid further. It can be a vicious circle.

5. High prolactin - Prolactin is a hormone secreted in the pituitary of the brain that controls lactation in women. Some women produce too much prolactin, which interferes with the function of the ovaries and as a result affects secretion of progesterone and oestrogen.

Progesterone is one of my favourite hormones - when I am high on progesterone, my skin is happy. Have you seen pregnant mothers with their glowing skin? That’s largely down to progesterone, which is produced in large amounts by the placenta. Some of my patients tell me their only acne-free periods were during their pregnancy.

**Increased Growth Hormone (GH)**

A note about growth hormones. It’s a powerful anti-ageing, weight loss, brain boosting and muscle building hormone. With all hormones, you want it in the sweet spot - not too little, not too much. Too little, you will shrink, put on weight easily, fall into depression and age prematurely. Too much, you can become giant, have heart problems, diabetes and vision problems.

Breathe, and lower your cortisol levels before you pop another spot. I didn’t have tick boxes in the questionnaire because problems with growth hormones don’t typically present with acne first. Acne linked to growth hormones is caused mainly by modern diet, in this case milk and meat.

I won’t go into the politics of the dairy industry but in 1994, the FDA approved the use of genetically-engineered growth hormones injected into cows to produce more milk. Consider the maths: in 1970 one cow
produced 9700lbs of milk; now one cow produces 19,000lbs of milk. Poor overworked cows!

This synthetic hormone aims to mimic the natural GH that the cow’s pituitary secretes to develop young baby cows. However, when they have too much, they suffer from cystic ovaries, disorders of the uterus, diarrhoea, increased mastitis and reduced healing. Mastitis is the painful type of udder infection that causes cows to pump out bacteria and pus along with milk, requiring treatment with antibiotics and other medications that can end up in the milk.

The milk that you drink.

Cows are then removed from the farm earlier because of illness, slaughtered and eaten for meat – which is now laden with synthetic hormones and antibiotics. Research has shown a link between milk and:

- Girls reaching puberty much earlier (as early as 7 years old)
- Premenopausal women diagnosed with more breast cancer
- Weight gain and obesity (milk also has IGF-1 which increases insulin resistance).

IGF-1 (insulin-like growth factor) also triggers your skin to create more acne by:

- Increasing your skin’s oil production
- Increasing your skin’s cell multiplication (so your pores get clogged more often with dead skin cells)
- Increasing the stickiness of the sebum secreted, creating a glue that clumps the oil and dead skin cells together, clogging the pores, starving it of oxygen and creating a flourishing environment for P.Acne bacteria to grow.

Fortunately, many countries have banned the use of synthetic hormones in cows. However, even if your milk was deemed hormone-free or organic, there will still be natural hormones from the cows. Since most milk is produced during lactation, the breast-feeding cow will have a larger
amount of hormones in its system which will end up in your system too if you drink too much milk.

Some people may be tolerant to milk but more often than not, if you stop all dairy for three to four weeks, you will find your acne improving and skin clearing.

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So that was a simplistic view looking at the main hormonal imbalances that can cause acne.

HORMONAL NIRVANA

To keep it simple, I believe there are three main causes of hormonal acne:

1. Inflammation
2. Fluctuation of sugars (as seen earlier)
3. Fluctuation of hormones (as seen earlier)

If we dig deep into the source of acne and hormonal imbalance, it stems from a process called inflammation.

Inflammation by definition is the body’s normal physiological attempt to defend against foreign invasions and repair it from injury. Injury can result from trauma, infection, toxins or foods (poor diet).

When there is inflammation internally or externally, your skin will show it in the form of acne. Hormonal balance is one way of dealing with it.

I’m glad to see beauty industry moving towards what the Chinese knew so long ago about how skin cannot just be treated on the outside but also from the inside, through nutrition, circulation and, in recent years, hormonal balance.
When you can work with your body and skin to reduce inflammation, balance your sugars and balance your hormones, your hormonal acne will clear and your skin will love you once again.

In the next chapter, I share with you the Hormonal Adult Acne System (HAAS) which I created to help patients clear their hormonal acne without antibiotics, birth control pills or roaccutane.

Tweet This!

“Our hormones naturally want to be balanced. Our skin naturally beautiful - @DrTerryLoong #HormonalAcneSolution”
SUMMARY OF CHAPTER 2

The hormonal system is an intricate interwoven system that works together to maintain balance within our bodies.

Hormonal acne is caused by:
- Inflammation
- Fluctuation of sugars
- Fluctuation of hormones

Common hormone imbalances that can cause acne are:
- High cortisol
- High testosterone
- Increased insulin
- High oestrogen with or without low progesterone
- High growth hormone from diet

QUESTIONS TO ASK YOURSELF

1. Which hormones do you feel are out of balance for you?
2. What do you think got you out of balance?