Discover how you age and what you can do about it.



DR BRADLEY M TOMKINS

SECRETS OF THE AGEING FACE

Look Younger, Feel Better.

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About The Author



Doctor Brad is Bristol "born and bred" and is proud to serve patients in the West Country.

Educated locally at <u>Colston's School</u>, he developed a passion for rugby, performed with distinction in GCSEs and attained straight A's in science A-Levels before going directly to London to study Medicine at the oldest and arguably the most distinguished medical school in England, <u>St</u> <u>Bartholomew's and The Royal London School of Medicine (Queen Mary University of London)</u>,

Doctor Brad got his first experience of plastic surgery and aesthetic medicine whilst still a medical school undergraduate when he was attached to the prestigious plastic surgery department at <u>Broomfield Hospital</u>, Chelmsford, Essex. There he got to "scrub in" and assist in complex procedures such as breast reconstruction and augmentation, skin cancer excision, flap reconstructions, microsurgery and burns treatments. He was also exposed to a wide range of aesthetic, dermatological and plastic surgery conditions by attending out-patient clinics and working with ward staff to care for post-operative in-patients and their complications. Doctor Brad participated in study and research at <u>The University of Bristol</u> to be awarded a Bachelor of Science degree in <u>Molecular and Cellular Physiology</u> in 2004 and was also elected to represent <u>Medical</u> <u>Officer Cadets</u> at the <u>British Medical Association's "Armed Forces Committee</u>".

After qualifying in 2005, he completed 2 years of rotations through Essex and London hospitals dealing with the full range of acute medical and surgical problems, gaining wide experience in practical and surgical procedures. After graduating from <u>Britannia Royal Naval College, Dartmouth</u>, a further 5 years of dedicated service as a fully commissioned <u>Royal Navy Medical Officer</u> followed, with appointments both ashore and at sea, serving as Medical Officer on active duty for lengthy international deployments in famous warships such as <u>HMS Ark Royal</u> and winning the <u>Op Telic</u> <u>medal</u> for his service at sea in The Arabian Gulf.

After a further 20 months of various speciality rotations in <u>Frimley Park Hospital, Surrey</u>, he returned to Bristol to complete his speciality training in General Practice with the well-respected <u>Severn</u> <u>Deanery</u> and was awarded full membership of <u>The Royal College of General Practitioners</u> in 2013. Since then, he has developed his private practice and reputation working as a locum General Practitioner for a wide variety of NHS GP surgeries both in Plymouth and Bristol whilst developing his expertise and qualifications in <u>aesthetic medicine</u> under the tutelage of renowned plastic surgeons in <u>Harley Street, London</u>. Dr Brad develops his aesthetic medicine skills through <u>Continuing</u> <u>Professional Development</u>, attending courses and conferences and is passionate about helping people achieve their individual facial aesthetic goals.

Introduction.

Welcome to this valuable guide which will open your eyes to the ageing problems that develop in facial skin and what you can do to prevent or correct them to achieve a healthier, younger appearance. In addition to being a general practitioner, Dr Brad is an expert in facial ageing and the steps we can all take to prevent or treat those signs of ageing, so you know that you can trust what you read here.

Almost everything you read in this book will have a focus on "facial health" which I feel is a far too neglected aspect of mainstream medicine in the UK today. You hear doctors telling the public to look after their "heart health" or "mental health" but never their "facial health". I believe that this is only because the means to effectively intervene in *facial health* is a relative newcomer to modern medicine and fails to attract NHS funding due to idealogical and economic reasons.

Nevertheless, the reality of the situation is therefore that only you and you alone can take the initiative to protect and enhance your <u>facial health</u>. The first step to doing so is to empower yourself with the necessary knowledge and know-how. Read on and I'll open your eyes.

An Overview of Facial Ageing.

As time goes by our faces gradually and inevitably undergo the ageing process just like the rest of our bodies. No one can escape this. No one can deny this. Younger people may deny it to themselves and men perhaps often deny it to themselves more than women but it is inevitably happening whether we like it or not. We can't see the signs of ageing going on in our internal organs but we can see the signs in our own skin with ease (if we first know what to look for). Indeed, the visual appearance of skin has been said to sometimes be a good barometer of our general state of health. Nowhere is this more visible than in the face and that is the focus of my study and work.

The face is usually the first thing that people see when they interact with you and is what they will spend most of their time looking at when they interact with you so you want it looks its best. Remember that you never get a second chance to make a first impression and your face is central to the formation of that oh so important impression. That's true in all walks of life and cultures, whether it be dating, a job interview, meeting or social gathering.

If your face is looking good it will make you feel good. Your self-confidence is soooo important, right?

The process of facial ageing has been the subject of interest over thousands of years dating as far back as ancient Egypt and has, more recently, become the subject of serious scientific study. There are many well-documented changes associated with facial ageing including multiple changes in all layers of the skin, the underlying fat, muscles and fascia, even in the bone size and shape. I might discuss those in a separate article on my website in future.



• The Face as a "Dining Table".

For now, let's consider the popular analogy of the face with a well laid, "fine dining" table. In this analogy, the table itself represents the underlying bone and supporting soft tissues. The table cloth represents the skin. The cutlery and accoutrements represent the jewellery, clothes, hair and make up etc. You might consider the laundry detergent used to clean the tablecloth to represent the daily cleansing and cosmeceutical skin regime.

If any of the steps in creating a well laid table are missed, skimped on or neglected then the overall final appearance will be affected.

What might make the table look less attractive? For example, the edges of the table might be sharp or damaged. The surface of the table might be warped with dents or depressions in it. The table cloth may be torn, stained, discoloured or thinned due to overuse, abuse and perhaps poor cleaning and storage. It may be affected by mildew. It may be poorly fitting and wrinkled if the proper table clips are not used. The cutlery and accoutrements may be of poor quality, not matching and laid out carelessly.

Would someone in denial about the ageing process and whether or not treatment is effective or "worth it" also deny that the dining table in the example couldn't be improved by some small and simple, obviously effective efforts to get a better outcome? Of course not! The same principle applies to facial aesthetics. A series of relatively minor adjustments can go a long way to improving the overall appearance.



• Consider The Entire Face

The approach to good facial aesthetics shouldn't just tackle one aspect of ageing. A responsible expert should consider the entire face in 3D, considering the lifestyle, genetics, overall health and also the wishes of the individual patient. For example, someone simply consulting for a "Botox-style" wrinkle treatment can get a good result for that specific wrinkle problem but should not fool themselves that is all that is required and wilfully neglect the other aspects of a good facial aesthetic treatment plan.



Ignorance Is Not Bliss

Unfortunately, I find that this topic is not well covered in the media or by commercial advertisers. The beauty media regularly pick up on just one or two aspects of facial ageing time and time again in their news or magazine stories and focus on those. Beauty product manufacturers focus on one specific problem at a time in their ads. No one is talking about beauty or facial aesthetics in its entirety!

Over-hyped and Disappointing Creams

Nobody teaches you properly about ageing and facial aesthetics at school in science or "personal and social education" classes. No one teaches or tells you that ageing is a welldefined process for which there are now proven treatments to help. No one teaches you <u>that</u> <u>it is OK</u> to start early to <u>prevent</u> the signs of ageing. Cosmetics companies with their enormous advertising budgets and commercially valuable, established brand names just want to sell you one expensive "wonder cream" after another that will do it all! Ha! What a lie! Who is challenging them? No one!

No single treatment can possibly address the facial ageing process by itself because it is multifactorial ie there's more than one mechanism at work under that facial skin of yours!

• Your Face Is No Laughing Matter.

I think it's fair to say that society has traditionally criticised or even mocked people who wanted to prevent or reverse the signs of ageing. Harsh accusations of "vanity" are often made against anyone who takes an interest in their appearance. Men may be teased or suffer homophobic taunts if they express an interest in their appearance. Perhaps some of those people perpetuating such negative attitudes have their own agenda. Maybe they have already suffered from their ignorance in this area and have already suffered the signs of ageing. Maybe they simply don't believe that effective treatments are available from trustworthy providers or that they are affordable. Maybe they don't have the confidence or the money to undertake treatments themselves so they don't want other people to benefit ahead of them.

Again, don't forget that "misery loves company".



• Prevention Is Better Than Cure

One other very important message is that "prevention is better than cure". This is a standard age-old adage in medicine and couldn't be more true in the field of facial aesthetics. Facial ageing is going to happen to everyone, one way or another but the process can be modified for the better. Ageing is a subtle and slow process that happens at different rates in different people. We have all seen the 30 year old that looks 50 and vice-versa! Part of that might be genetics but I'd say that much of it is lifestyle related. You might hear doctors refer to genetic factors as "intrinsic ageing factors" and lifestyle factors referred to as "extrinsic ageing factors" are those that you can't influence whilst "extrinsic factors" are those that you can influence.

If you live a healthy lifestyle, you age better. Simple. More on that later.

With all that said, it is important to recognise that the signs of facial ageing develop slowly, gradually, and subtly, typically from the mid-late 20s. A person with an old looking face didn't suddenly wake up one morning and look old. It was a gradual process that was left untreated and unchecked and eventually added up to an appearance of old or older age. Those little changes are well recognised and documented.

What I'm getting at is that treatments started earlier rather than later in life and maintained on a regular basis over the years can keep you looking younger and healthier when compared to someone that has not. It's also easier to treat those little signs of ageing as they arise than to treat established problems years down the line. Don't get me wrong, it's never *"too late"* to treat established problem areas but it's better to catch things early.

• Don't Let Cynicism Age You.

You've seen celebrities on the television who look "remarkably good for their age". Your friends say scornfully "I bet they've had work done" and you may nod along and grunt in derision and agreement. Yet who is the winner and the loser in that scenario. Don't kid yourself! The celebrity with the seemingly ever-lasting, glittering career and toy-boy on her arm is streets ahead of you. Do you imagine she thinks that she spent too much time, money and effort on facial aesthetic treatments? I doubt it. She was lucky enough to meet a doctor that understood facial aesthetics and educated her about it. She listened, took action and got results. You could too.



Now Get Ready...

Anyway, I'm here to set the record straight and lay it all out for you in one place so that you can finally get to grips with the medicine of facial aesthetics in a way that you can understand.

You are going to get the full picture that nobody else has ever explained to you. I break facial aesthetics in to 10 main areas and each of these should be considered in every person.

First, watch this video of a clay modelled face showing the clearly recognised progression of little changes that add up to create an aged face

http://doctorbrad.net/demonstration-facial-ageing

This will give you the insight into how specific, reproducible and predictable these little changes are that contribute to the aged look.

The seven areas that I'm about to discuss form the basis of a consultation with my patients. Often, patients will attend confidently asking for 1 or maybe 2 specific treatments but when I start to identify other problem areas and suggest additional treatments they are blown away by what they didn't realise was going on in their own face and what positive action they could take to correct things.

This guide should save me time in clinic by educating my patients (and others) before they come to see me. A well informed patient (like you after having read this guide), can ask deeper questions and get more out of their time with me if they already have some understanding of facial ageing and what is on offer. Education leads to empowerment and I see it as part of my job to facilitate that for you. Do read on and I'll explain to you some of the common signs of ageing, what we can do to prevent and treat them and how all of this fits into your consultation and assessment.



Skin Texture and Appearance.

An evaluation of the skin itself is fundamental to the consultation. It would be remiss to consider treatments to the face without considering the quality of the skin's surface appearance. With age, the tone and texture of the skin deteriorates and age spots start to appear.

Fundamentals of an Effective Skin Care Regime.

The first thing that someone can do for the self is to open their mind and get well-informed about the benefits of a full daily skin care product regime. I'm not referring to over the counter high street brand products that claim to "do it all" in one product. I'm referring to the use of proper "cosmeceuticals", which are products containing highly active ingredients that skin care doctors are able to recommend to their patients and they are more affordable than you might imagine when compared to high street brands. Indeed, many high street products license the chemistry technology for the ingredients in their own popular branded products from cosmeceutical companies in the first place.



Essentially, a person should have a morning and an evening routine. This should always start with the use of a cleanser, rather than a soap as it is less harsh and dehydrating to the skin. For the morning routine, a person should typically use a product containing a high concentration of Vitamin C to enhance the brightness of the skin and to aid collagen synthesis. For middle age to mature (and even younger) skin types the addition of a Vitamin E and/or Vitamin B based product for occasional hydration through the day should be considered. Sunblock with SPF 30 and above should be applied afterwards although this might not be quite so imperative if someone works indoors a lot or it is a deep, dark winter.

An evening routine should again start with a cleanser, followed by the application of a product containing Vitamin A, also known as retinol. Vitamin A is a powerful anti-ageing product. It is deactivated by UV light but can also sensitise the skin to UV light so is only applied at night. Many such products come in brown glass phials which do not allow UV light to damage the product contained within.

Skin bleaching creams containing key ingredients such as kojic acid can also be used to treat hyper-pigmentation problems and age spots.

Secrets of the Ageing Face

Some people prefer the lighter consistency of a serum rather than creams which are more oily. It depends on the person's budget, skin type and preferences. Some people even choose to use a serum, cream and a sunblock all together. The key thing to remember is that the serum is usually the higher concentration and more pure product so should be applied after the cleansing stage, followed by any creams and then the sunblock.

Enhanced Penetration

A high quality, home-use dermal roller microneedling device with short needles ie 0.2-0.3mm should be used after the application of products at night, 2-3 times a week to enhance the penetration and absorption of the products into the skin for even better results. The devices are affordable, effective and surprisingly tolerable without any anaesthetic but the person has to get over the psychological barrier of using tiny needles on their face in the first place. Note that these needles are much shorter than those used for collagen stimulation in the clinic (see later).



Freshening Up The Outer Layer Of The Skin

Now, let's move on to talk about the outer layer of the skin, the epidermis. That's the bit you look directly at every day. That is essentially a thin layer of flat, dehydrated, flaking dead cells. If nothing else, this needs to be kept fresh to maintain an optimum appearance. This fresh appearance is achieved by the use of medical grade chemical peels. These are not to be confused with "home chemical peels" which are less powerful and less effective.



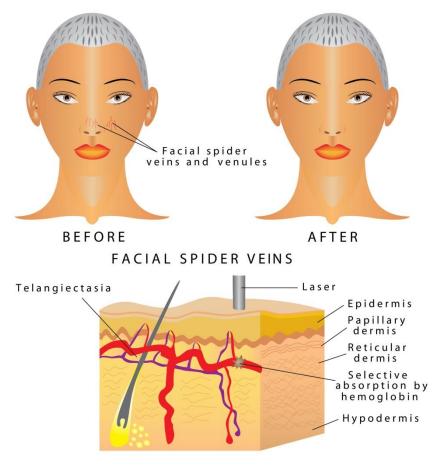
A person can choose from a superficial or a medium depth chemical peel. Superficial peels are principally performed with glycolic acid. These may or may not be used in combination with mandelic or citric acid to target acne and pigmentation problems respectively. All three of these types of acid cause light peeling to remove the very outer layer. This is suitable for any skin colour, type or age so even people in their twenties can start doing this. After the initial course of 6 peels, one every 6-8 weeks is recommended for maintenance.

A medium depth peel with trichloro-acetic acid (TCA) creates a more noticeable peeling effect as it removes the epidermis <u>and</u> the upper part of the next layer down, the dermis. This is more effective for people in their 30s and above who are starting to develop UV related photo-damage pigmentation (brown spots) in the skin or those with acne-pitted scarring. After an initial course of up to 2 peels over 6 weeks, just one a year is recommended for maintenance. The brown crusted peeling is more noticeable than with the superficial peels and that can last approx. 7-10 days but it is more effective and less treatments are required to get optimum results.

With any chemical peel, the skin is more sensitive to the effects of UV light for a period of time afterwards so a daily sunscreen should definitely be used for 4-6 weeks afterwards. I have written about chemical peels and other treatments in more detail on my website at http://doctorbrad.net/chemical-peel-bristol

Thread Veins

Thread veins are the tiny little blood vessels that can start to appear in the very outer layers of the facial skin. They are also called "telangiectasia" or "spider naevi" depending on their pattern. They might be red, blue or purple and its fair to say that nobody likes them. They may be provoked by excessive UV exposure, long term prescription medication such as steroids or even alcohol abuse. Sometimes they have no obvious direct lifestyle related cause. They tend to "blanche" (briefly disappear) when a finger pressure is applied to them because the blood is pushed out of them but they instantly return as they refill with blood. The main treatment for these is light based therapy such as a laser or "intense pulsed light treatment" but these are only available at specialist centres. With that said, it's better to treat them earlier rather than later as they can become larger and more difficult to treat over time.



FACIAL VEIN TREATMENT

Healthy Lifestyle, Healthy Skin.

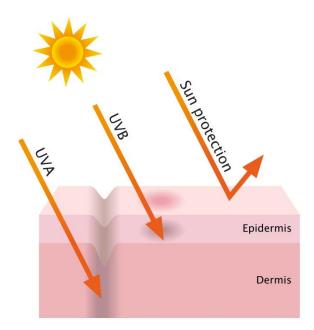
The other thing to consider when looking at the overall appearance of the skin is "lifestyle factors". Lifestyle factors consist of the choices the person makes in the way that they live their life.

The lifestyle factors that are most relevant top facial health include:

• UV exposure.

UV exposure leads to *photo-ageing* ("ageing caused by exposure to light") and is a major cause of an aged appearance. Exposure to UV rays causes activation of chemicals called "metalloprotease enzymes" in the skin that actively degrade dermal collagen. UV also causes a reduction in the production of collagen in the skin so it's a double whammy! This leads to a gradual and cumulative loss of volume, tone and elasticity in the skin over time if this exposure is repeated. UV also causes over activity of the melanocytes cells in the epidermis which, in addition to a short lived tan, cause permanent age spots called *solar lentigo* or *solar lentigines*. These are traditionally rather un-attractively called "liver spots" (although they actually have nothing to do with the liver).

Education, sun avoidance and the use of a daily sunscreen are all key in prevention of photo-ageing.



• Smoking.

Needless to say, smoking is bad for you. It is so very bad for you in so many varied ways that I can't cover them all. Risks include cancer, emphysema, heart disease and stroke, none of which are minor problems! However, the many tobacco smoke toxins that are absorbed into the blood stream through the lungs have a well recognised effect on the facial skin, causing a loss of collagen and deterioration in tone and texture which leads to early wrinkling and sagging. Do you like the "smoker's pout"?

It's not my place to judge. I'm not judging.

I'm just stating that smoke is well known to be a major factor in early facial ageing. It's indisputable.



If you want to quit and reap the benefits, your GP practice can offer a range of supportive smoking cessation services.

<u>Alcohol.</u>

Alcohol is a widely used and largely socially acceptable drug in the Western world. The negative effects on the facial skin include flushing caused by vasodilatation and telangiectasia "thread veins". Alcohol also dehydrates the body and that includes the skin of the face which has a negative effect on your appearance. It can also make you tired and that is often associated with "bags under the eyes". Alcohol consumption can also be a factor in provoking outbreaks of acne.



Alcohol itself, and the drinks themselves are also full of "empty calories" which make you fatter.

• Drug abuse.

Don't do drugs. It's a simple message. Drugs increase the likelihood of you making other bad lifestyle choices. If you smoke them, they harm your facial skin. Opiate users also typically develop a gaunt appearance related to poor nutrition, the drug itself and the lifestyle choices associated.

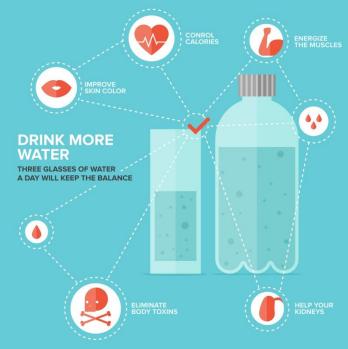


Drug users are generally at higher risk of contracting blood borne viruses such as hepatitis and HIV which also cause facial changes such as jaundice or volume loss. Don't do drugs.

• Hydration.

A well hydrated skin has better tone and volume. To achieve good hydration, aim to drink 2-3 litres of water a day. Gradually build it into your daily routine so that it becomes a habit. It's free, simple and effective.

Coffee, tea and alcohol all dehydrate the body to some degree so minimise these or avoid their excess consumption.



A Vitamin B and or E based product applied daily and as required will also aid you to maintain skin hydration.

• <u>A Healthy Weight.</u>

There are many benefits to maintaining a healthy weight, which is often defined as a Body Mass Index of 20-25. Benefits include a reduced risk of cancer, stroke, heart disease, high blood pressure and diabetes. However, have you ever stopped to consider the effect that being overweight has on the face? Excess fat in the body doesn't just get deposited around the belly and thighs. It also gets deposited in the face and neck and that causes a "fat face", "jowelling" and a loss of definition of the chin and jaw-line which is a major sign of ageing.



Being overweight increases the likelihood that you'll have high cholesterol levels in the blood. As well as being a risk factor for heart attacks and stroke, cholesterol can also be deposited in the skin of the face, typically around the eyes. This is called "xanthelasma" and can be difficult to treat.

Lose weight, look and feel better. Consume less, exercise more. Simple. • Exercise.

Exercise will help you to lose weight and maintain a healthy heart and lungs. As just discussed, a healthy weight is good for your facial aesthetics. Exercise also increases the blood flow to the face which is great for collagen production and healing of damaged skin because more nutrients are delivered to the outer layers of the skin.



Let's not forget that exercise also improves the aesthetic appearance of your body as a whole with increased tone and musculature to the torso and limbs. This will improve the overall aesthetic look that you surely want for yourself as a whole person.

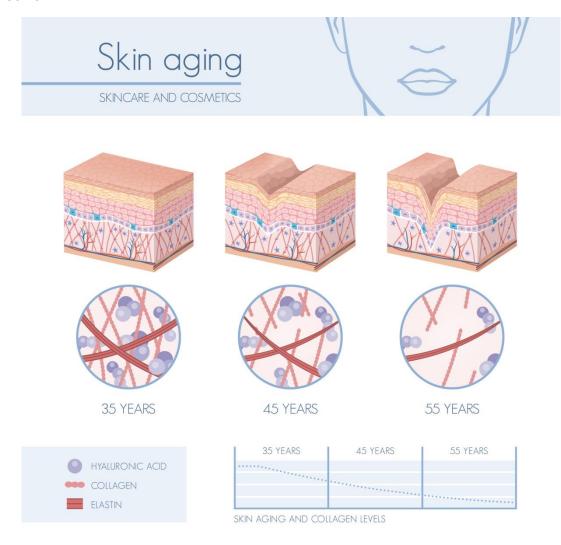
Summary

So in summary, to improve the superficial appearance of your skin:

- Use an appropriate daily skin care regime with proper cosmeceuticals.
- Use a home micro-needling roller for enhanced product penetration and effect.
- Undergo an initial series of facial peels and follow it up with regular maintenance peels.
- Look after yourself by living a "Healthy And Sustainable Lifestyle", as they say.

Skin Tone and Deeper Layers.

The dermis and the soft subcutaneous tissues under it are all subject to gradual changes and deterioration as time passes. Studies have shown that from the age of just 25 the collagen content of your dermis diminishes by at least 1% a year. This contributes to the volume loss that is evident in most people's untreated skin, can be accelerated by poor lifestyle choices and leads to loss of both tone and texture with an increase in wrinkling and sagging of the face.



Poor skin tone is often a direct result of reduced collagen content in the dermis!

It should therefore be obvious that we should aim to prevent the development of loose, wrinkly saggy skin before it happens by replenishing our own dermal collagen content.

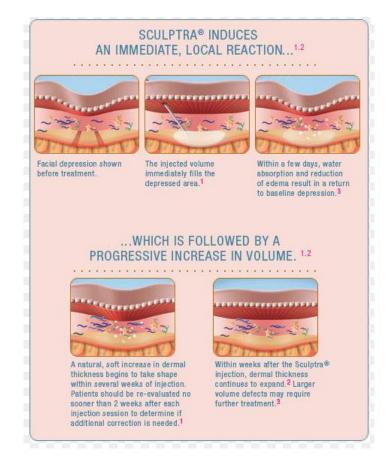
Fortunately, in modern medicine we do now have safe and effective ways to do this. The following two methods are two different ways of administering "collagen induction therapy".

SCULPTRA

The first is to inject a product called poly-L lactic acid (PLLA) into the skin of the cheeks and temples. PLLA is more commonly used as the main component of the dissolvable surgical stitches used in operations.

For facial aesthetics it is produced under the commercial brand name "Sculptra". It comes as a dry powder that is mixed up into a thin watery solution. After injection in to the skin it is gradually broken down and this biochemically stimulates the fibroblast cells in your dermis to slowly and gradually produce more of your body's own natural collagen so that the improvement in effect is also gradual but eventually very significant.

With an initial treatment of 3-4 injections, one every 4-6 weeks, the patient notices a gradual improvement in the tone and texture of the skin as the collagen content of the dermis is replenished. The PLLA molecules are eventually completely cleared from the skin through natural processes and the new natural collagen remains to leave you looking better.



The natural looking effects of Sculptra can last for up to 2 years or more and a single top up is usually all that is required at that time. Learn more about SCULPTRA on my website at http://doctorbrad.net/sculptra-treatment-bristol

Micro-Needling.

The second great way of stimulating your skin to replenish lost dermal collagen by creating more is by the use of a dermal roller micro-needling device. These sterile rollers are produced to rigorous standards by large, established medical companies and are studded with hundreds of microneedles protruding at 90 degrees from the drum. The needles are of an exact, specified length that are capable of reliably penetrating through to the correct depth in the dermis. When the device is applied to the skin it creates thousands of points of *micro-trauma* in the dermis which stimulates the release of growth factors and cytokines (useful cellular chemicals) from the deeper skin cells. This release of chemicals in the skin stimulates fibroblast cells in the dermis to create more of the body's own collagen.



Of course, this would be uncomfortable and perhaps intolerable for some people if numbing cream is not applied first so that is one of the reasons this is performed by Dr Brad in his clinic and people should not be doing this at home. The skin also needs to be correctly prepared and sterilised before and after treatment to prevent infection and to maximise the outcome. The force of application also needs to be sufficiently firm to stimulate the collagen production and this is difficult for a person to achieve on themselves.

Just like Sculptra, this is a "clinic only procedure". Unlike Sculptra, it can be used all over the face whereas Sculptra use is restricted to the temples and cheeks.

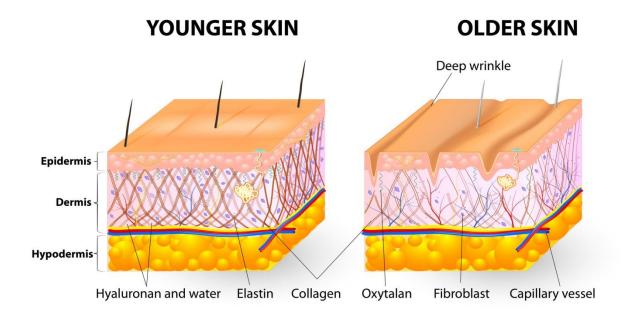
Deep dermal micro-needling like this is performed three times, once every 4-6 weeks and can be repeated annually as required or desired. Unlike chemical peels, it does not sensitise skin to UV light so additional attention to daily sunscreen use is not so imperative. Learn more about microneedling at http://doctorbrad.net/dermal-roller-microneedling-doctor-bristol

Summary

You can see that we have two different ways to stimulate our own collagen production and because they work by two different mechanisms it is best to undergo both (not at the same time), rather than just one if you have the time and money for it.

Relax Those Muscles

The muscles under the skin can not be ignored when considering facial aesthetics. We all have the same muscles under the skin but they can vary in size and shape between individuals and this is part of the reason that we all look a little different to one another. The muscles of our faces contract or "pull" (but never push), enabling us to chew, open our eyes and show a wide variety of subtle facial expressions. They are attached to bones and soft tissues at specific places throughout the face and many of them are also closely attached to the underside of the skin itself. When we are younger, those muscular contractions enable us to make a facial expression on moment before relaxing and seeing out facial skin spring back to a neutral unwrinkled position due to the high collagen and elastin content of the skin's dermis.



Where Do Wrinkles Come From?

As the years go by, the collagen and elastin content of the dermis decreases, resulting in deeper wrinkling of the skin when the muscles contract. Wrinkles that are only apparent when the muscles contract are called "dynamic wrinkles". This wrinkling occurs predictably and repeatedly along the exact same lines of skin time after time. The repetitiveness of the wrinkling in ageing skin results in wrinkles becoming visible even when the muscles are at rest. These are called "static wrinkles" and are a sign of more advanced ageing than dynamic wrinkles alone.

The dreaded wrinkles, both static and dynamic, are a major sign of facial ageing and the one that the general public is perhaps most aware of.



Wrinkles occur in the forehead, at the sides of the eyes, between the eyes, on the nose, between the check and nose, either side of the chin and sometimes prominent banding of the neck muscles can occur too.

Iron Out Those Wrinkles.

If you can stop or reduce the contraction of specific underlying muscles, you can eliminate or reduce troublesome wrinkles. This is the fundamental principle behind "wrinkle relaxing injections" that you will probably have heard about and they are often very effective. The injections contain the active, purified molecule of "Botulinum toxin". This molecule is carefully produced by a few large pharmaceutical companies under strict regulation for medical use. The toxin molecule very effectively prevents nerves from making muscles contract.

Wrinkle relaxing injections are commonly referred to as "having Botox" by the average member of the general public. The word "Botox" is the brand name of one of the pharmaceutical companies that manufactures Botulinum toxin for medical use and was the first brand to become synonymous with the treatment. However, there are other newer, equally effective and safe brands such as Bocouture and Azzalure that also do the job.



The injections are administered under aseptic conditions with carefully prepared and calculated dosages into specific muscles to create the desired muscle relaxing effect. The effects are delayed in onset and may appear over two weeks and only at that time is it fair to assess the effectiveness of the treatment.

The duration of effect of treatment varies from individual to individual and is temporary but is usually quoted as being on average 3 months with some patients reporting effects up to 6 months or so. You can learn A LOT more about wrinkle relaxing injections on my website at http://doctorbrad.net/botox-injections-bristol

Summary

Wrinkle relaxing injections containing purified Botulinum toxin are proven to be safe and effective for the treatment of a variety of facial wrinkles and are very popular for good reason.

Facial Contouring.

The contours of the face refer to the 3 dimensional curves that create the shape of your face. Loss of volume in the skin and soft tissues under the skin that occurs over the years changes the contours of the face so that it takes on a more aged appearance in terms of sagging, laxity and hollowing.



Common problems that fall into this category, listed from the top of the face working down, include:

- Hollowing of the temples,
- Drooping upper lateral brows,
- Deepening tear troughs,
- Less prominent malar prominences (AKA "cheekbones"),
- More prominent nasolabial folds
- Narrowing and wrinkling of the lips,
- Increased jowelling,
- Development of Marionette lines
- Wrinkling of the chin

You can read more about each of these individual treatments on my website.



Use of Hyaluronic Acid Fillers for the Treatment of the Aging Face

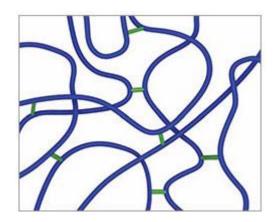
Facial volume loss is one of the most significant factors causing an aged facial appearance. Facial volume loss may be due to any or a combination of:

- Reduction in collagen and elastin,
- Facial skeletal bone resorption and remodelling,
- Soft tissue ligamentous weakening,
- Gravitational descent of subcutaneous tissues,
- Significant weight loss.

The loss of volume in one area can contribute to signs of ageing in other areas of the face. One common example of this is where volume loss over the "malar prominence" AKA "cheekbones" causes the skin to sag downwards which contributes to the development of nasolabial folds and jowelling. Restoration of volume at the malar prominence can therefore often reduce the appearance of the nasolabial folds and jowelling, perhaps reducing the need for three separate treatments.

Subtle corrections.

Facial volume loss is clearly a very important issue that contributes to the appearance of an aged face. Fortunately, we now have modern gels that can be injected under the facial skin to restore volume in targeted areas. These gels are made of microscopic stringy molecules called "hyaluronic acids" that are a natural substance found widely in the human body from skin through to joints. For this reason, you can't be allergic to them. Different gels are available and they vary by their consistency making different gels suitable for different areas of the face. Some last in the body for longer than others and this can typically vary from 4 to 18 months depending on the product used.



This variation is achieved during the manufacturing process by making changes to how the HA molecules intertwine with each other so that more intertwined molecules are firmer and theoretically last longer in the face than less intertwined molecules.

These gel products are commonly referred to by members of the public as "fillers". On a personal note, I dislike the term "filler" as I can't help but think of the building product "PolyFilla" which is used for filling in surface dents in walls etc which is nothing like how we use gel "fillers" for the face.

Before injection of a filler gel, it is usually a good idea to apply numbing cream to the area for approx. 30 mins prior to injection. This is not essential and not every patient wants the numbing effect of local anaesthetic cream but most do. Injection of filler gels can be tolerated without numbing cream but I think it's better to use it than not. As an aside, most HA gels come pre-mixed with lidocaine anaesthetic in the syringe for the patient's comfort but that only starts working *after* the injections are performed, of course.

Summary

Targeted correction of volume loss in specific parts of the face can have a dramatic effect on the face, restoring a more healthy and youthful appearance. The unique mechanism of action, immediate effects and low risks make this a very popular and effective treatment.

Healthy Lips.

Lips are an important asset to a beautiful face. Whilst this is commonly understood to be the case for women, men can also benefit from a more subtle volume enhancement of the lips.



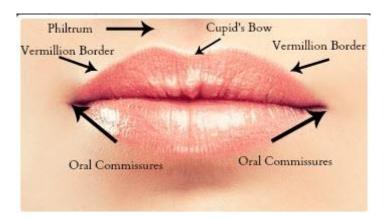
The Beauty of Lips

Women have always been widely admired by men for their luscious, voluptuous lips but until more recent years only those women with naturally full lips could display them. Thanks to modern medicine it is now possible for any woman to enhance her lips through non-surgical enhancement techniques. The two aspects of beautiful lips, volume and definition can be easily enhanced by the gentle and direct injection of hyaluronic acid gels administered by a qualified professional. Injections are administered after a thorough application of numbing cream and then a skin disinfection process. Lips do swell quite quickly during treatment but this subsides within 24-48 hours at the outside leaving beautiful looking lips that can become the focus of the individual's face.

For many women, the loss of collagen in the upper lip over time an result in the gradual appearance of prominent peri-oral lines, also known as "smoker's lines" because they are often more prominent in smokers due to the damaging effects of the smoke on the quality of the skin. These multiple fine lines occur all along the border of the upper lip and radiate towards the nose, becoming more deep and prominent with time or when the woman pouts. Women are thought to be more prone to them because they have less hair follicles there than men.

Lip Gel Treatments

Peri-oral lines are widely regarded as undesirable and can fortunately now be treated with HA gel filler enhancing the volume and border of the lip. The gel filler can also be used to enhance or re-create the two "philtral columns" that run from the middle of the top lip to the nose. This all adds volume and support to the upper lip so that wrinkles become less prominent. If this fails then gel can be applied directly under each of the peri-oral wrinkles to puff them out a bit but treatment can be a difficult process requiring multiple revisions to achieve the desired effect.



You can read more about lip fillers on my website at http://doctorbrad.net/lip-fillers-bristol

Lip Relaxation

One other way to reduce the peri-oral lines of the upper lip is to administer Botulinum toxin injections to the upper lip. These work by weakening the circular muscle that encircles the lips (the orbicularis oris muscle) so that it is less able to contract and cause the wrinkles in the first place. Learn more at <u>http://doctorbrad.net/lip-lines-bristol</u>

Summary

Full-bodied and well-defined lips are key to a beautiful face and should not be neglected. Why tolerate thin, flat lips when you don't have to?

Neck, Decolletage and Hands.

The condition of the neck, décolletage (upper chest) and hands can often betray the extent of a person's true age and condition even if they have paid attention to their general health fitness and facial health. They exhibit the same signs of collagen loss and environmental damage (UV, smoking etc) as the facial skin and as they are just as visible to people during every day interactions they should also be treated.



Fortunately, treatments such as chemical peels and micro-needling are also effective for these areas. In addition, purified Botulinum toxin can be injected directly into prominent neck bands to relax them whilst hollowing in the backs of the hands can be restored using HA gel filler injections.

Summary.

Don't treat the face and forget to treat the neck, décolletage and hands or you could be doing yourself a disservice.

Other Important Factors To Consider.

Now, clearly we have covered a lot of factors that contribute to facial health and many of the most common tell-tale signs of ageing that modern medicine can treat with effective non-surgical interventions. However, there are other factors and things you can do to enhance or alter your appearance to achieve a different look. I am not an expert in these areas and some are quite obvious but I will mention them for completeness. They include

• Dentition

Healthy dentition is undoubtedly an important part of a healthy facial appearance. DO pay attention to your daily oral hygiene regime which should consist of gentle brushing twice daily, flossing and the use of a mouthwash. Avoid excessive consumption of acidic drinks like tea and carbonated drinks. Avoid sugary drinks, biscuits, cakes etc. All of these things contribute to the formation of cavities in the white of your teeth that can then cause decay, toothache, dead black teeth and gum recession with bleeding and abscesses. None of that looks attractive by any means and will eventually lead to tooth loss. The loss of teeth causes the actual facial bones (maxilla and mandible) that support your mouth to irreversibly shrink away and the combined effect is of a collapsed upper and lower lip and the classic "gummy" look that no one wants.

Another common problem is overcrowding of teeth, rotated teeth, pointy teeth, protruding teeth etc. These can be addressed by extractions and or braces so speak to a cosmetic dentist about these problems.

Discoloured teeth are often the result of smoking or consumption of excessive tea, coffee or red wines. Moderate your consumption to avoid these problems and discuss proper whitening procedures with your dentist if you need to

• Hair

It is clear that investing in the right haircut will enhance your appearance. Take the trouble to consult an experienced stylist to take advice and try out new things. Don't be afraid to experiment and try something different. Use decent hair products and keep your "do" maintained regularly.

On the other hand, if lack of hair is a problem then over the counter products like "Regaine" can help to stimulate your follicles and if that fails there is always the option of hair transplantation from your friendly private trichologist.

Make Up

I'm not a make-up artist and I'm not an expert in this but once again, take the trouble to consult a make-up expert and invest in yourself. Culturally, of course, this applies more to women than to men in the UK.

• Clothes and Jewellery

Again, probably more a consideration for the ladies but classy jewellery and a nice outfit can only enhance your appearance.

Conclusion and Next Steps.

Congratulations on reaching the end of this guide which has opened your eyes to the world of facial health, the common and most prominent signs of ageing and what we can do about them in modern times. We are truly fortunate to live in a time when the power of modern scientific technologies affords us the opportunity to address the outward signs of ageing in a quick, safe and affordable manner.

You probably didn't know much about the ageing process or what you could do about it before reading this book. I'm fairly certain that everyone who has read this book will learn something. On the downside, now that you know about the signs of ageing and how they can be addressed, you'll have trouble looking at people's faces (and indeed, your own) without considering how those problems could be so easily addressed.

If looking young and healthy is important to you, my message is "do not delay". Don't put off until tomorrow what you can address today because the longer a problem is left, the more difficult (and costly) it becomes to correct.

If you are one of my current patients then I hope you recognise some of our conversations reflected in this book and that you have consolidated your understanding of the many principles I try to convey to you during our consultations. If you are a casual reader or even a prospective patient then I hope you have learned something useful and can start to examine your appearance and signs of ageing with a more informed and analytical eye.

Do feel free to share this guide with your friends and family by email, social media or otherwise and if you would like to consult with me do contact me through my website http://DoctorBrad.net to arrange a convenient appointment.

Warm regards,





Dr Bradley M Tomkins BSc (Hons), MBBS (London), MRCGP