By JUNE CHEONG

Good genes may give a headstart in helping you to stay youthful. However, to remain in the race against time, it all boils down to the ABCs of lifestyle, say the experts.

While everyone grows older with each birthday, not everyone looks - or wants to look - his age.

Some youthful lookers are blessed with good genes, others with arguably good habits.

With modern aesthetic procedures, the vain can battle age spots, varicose veins and a sagging body.

As to why some stay youthful-looking longer, Dr Caroline Low, senior family physician in anti-ageing medicine at Raffles Hospital, said: 'It's 50 per cent nature and 50 per cent nurture.'

Her advice to those seeking the elixir of youth is to refrain from smoking, excessive alcohol or caffeine, or eating preserved or charred food.

Also, avoid getting stressed, get eight hours of sleep every night, reduce your calorie intake and exercise regularly.

'It boils down to the ABCs of lifestyle,' she said.

Other doctors MYB spoke to agreed, adding that while good genes give you a headstart, other factors that count include the rate at which your cells age, exposure to the sun and the amount of free radicals in your body.

Consultant plastic and cosmetic surgeon Ivor Lim from The Plastic & Hand Surgery said: 'Ageing is often cellular failure. The reason we get old is because our stem cells are no longer there to repair our bodies.'

Dr Andrew Khoo, consultant plastic surgeon at Aesthetic & Reconstructive Centre, said the single most important 'reversible' factor in the ageing of the skin is the amount of exposure to ultraviolet radiation when out in the sun.

Dr Patricia Yuen, consultant dermatologist at Pacific Healthcare Specialist Centre, said that everyone ages at a different rate and that is predetermined by genetics.

'However, sun damage and environmental pollutants accelerate the rate of natural ageing,' she said.

Free radicals can also age our bodies by damaging the genetic information held in cells, leading cells to die.

Although free radicals - oxygen molecules formed as a by-product when cells convert energy into a form they can use - are necessary, too much can harm and age the human body.
When a person ages, his body undergoes various changes, including hormonal ones, said Dr Julinda Lee, consultant obstetrician and gynaecologist with a specialist interest in age management at Pacific Healthcare Specialist Centre.

Such changes occur as a result of increasing cellular damage and a decline in the function of the various endocrine glands that produce hormones, she said.

Put simply, fewer hormones can affect the skin, hair, body composition and body shape.

Likening the ageing process to the ‘wear and tear’ in a car engine, Dr Leslie Leong, consultant orthopaedic surgeon at Island Orthopaedic Group, said: ‘The body's ability to make repairs starts to slow down and its ability to regenerate new tissue declines with age.’

The result: collagen production and elastin in the skin decreases, causing the skin to sag as it loses its ability to retain moisture or retract after stretching.

Skin also gets coarser and drier and pores on the face may enlarge. Dead skin cells are shed less quickly and new skin cell growth is slower.

Asked why sagging was such a pronounced feature of ageing, Dr Low said: ‘As we grow older, gravity prevails.’

A woman's breasts usually sag due to the pull of gravity and the breasts’ increasing proportion of fat, which is softer and does not hold up as well. Young breasts have a higher proportion of glandular tissue.

While different areas begin ageing at different times, most doctors MYB spoke to agreed that the effects start showing in the late 30s or early 40s.

Asked why men seem to age better than women, Dr Low attributed it to the gradual decline in testosterone in men as opposed to the plunge into a state of zero female hormones during menopause.

Dr Derrick Aw, consultant dermatologist in the department of medicine at National University Hospital, added: ‘Oil glands are generally more active and stay more active in men, which reduces the dry, sallow look. Women also tend to have slightly more facial fat than men, hence the sagging effect.’

Modern medical technology can mask the effects of ageing.

Dr Lim said: ‘I'm seeing a lot of people in their 30s or 40s and more men who are ready to go for aesthetic treatments.’

Such expensive aesthetic procedures include plastic surgery, facelifts and Botox jabs.

There is always the healthy option too: a balanced diet filled with antioxidants, plenty of water and regular exercise.

Dr Low gave this tip: ‘Exercise is the only thing that keeps people young. If you've exercised for more than 10 years continuously, you will look as young as the day you started regular exercise.’
Wear and tear

10 visible signs of ageing

1 Hair

**When it ages:** Anytime after puberty for hair loss, 30s for the appearance of white hair

**Why:** Hair is in its ‘growth phase’ for about four years before it is shed.

About 90 per cent of men's hair loss is due to androgenic alopecia, or male pattern baldness. This hereditary condition occurs when hair follicles are sensitive to the presence of the male hormone, testosterone.

Testosterone shortens the hair growth cycle and shrinks hair follicles such that the next hairs which grow out are smaller and finer.

Associate Professor Colin Song, head and senior consultant in plastic, reconstruction and aesthetic surgery at Singapore General Hospital, said that hair follicles are genetically predetermined to undergo detrimental changes as one ages.

White hair also starts cropping up as one ages. Hair colour is controlled by the amount of melanin in it. By age 30, melanin production drops and hair colour lightens. Turning grey is hereditary which explains why some people grey faster than others.

**Treatment:** Topical creams like minoxidil or oral medication like finasteride for hair loss. Hair transplants can also be considered. Hair can be dyed to mask the appearance of white hair.

2 Eyes

**When they age:** 40 and above

**Why:** When you age, the lens of the eye hardens and the muscles used for focusing weaken.

This causes presbyopia or what the Chinese commonly call lao hua yan - a condition where it is more difficult to focus at close range.

Besides hardening, the lens also thickens and the pupil gets smaller. This makes it harder to see in the dark as less light gets into the eye. Colour perception and contrast are also reduced as the ageing lens causes the light that does enter the eye to scatter more.

Age-related eye problems like cataract, glaucoma, macular degeneration and diabetic retinopathy may also occur.

**Treatment:** Dr Hoh Sek Tien, consultant eye surgeon at Ophthalmic Consultants at Gleneagles Medical Centre, said the most effective way to treat presbyopia is to wear spectacles.

Age-related eye diseases can be managed with surgery, eye drops or lasers.
What contributes most to age-related hearing loss is the degeneration of the 15,000 sound receptor hair cells in each inner ear.

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3 Ears

When they age: 60 and above

Why: What contributes most to age-related hearing loss is the degeneration of sound receptor hair cells in the inner ear.

Associate Professor Low Wong Kein, director of the Centre for Hearing and Ear Implants at Singapore General Hospital, said: 'We have a finite number of hair cells in our inner ear and these cells cannot be regenerated. Once they degenerate, they’re gone forever.'

Each ear possesses about 15,000 of such hair cells and those which allow you to hear high frequencies usually die first.

Dr Stephen Lee, ear, nose and throat specialist at Raffles Hospital, said one in three people above 60 will develop significant hearing loss.

Associate Professor Lynne Lim, consultant in the department of otolaryngology - head and neck surgery at National University Hospital, added: 'As the hearing loss is gradual, it can be missed without formal hearing tests.

'People may not know they have hearing loss. They may turn up the volume on the TV, exposing family members to over loud noise risk.'

Treatment: Hearing can be checked in most hospitals and shops selling hearing aids. Such aids, priced between $1,000 and $5,000, should be fitted by ear professionals. Cochlear implants, which are small electronic devices designed to provide a sense of sound to those who are profoundly deaf by directly stimulating the auditory nerve, are used only in cases of severe hearing loss and cost more than $40,000.

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4 Teeth

When they age: 40 and above

Why: When we age, less saliva, which removes bacteria, is produced and teeth and gums become more susceptible to decay. There will also be some degree of bony resorption, or loss of bone, and gingival recession, when the gum starts to expose the root of the tooth.

Dr Boey Sean Kuan, consultant dental surgeon at Pacific Healthcare Specialist Centre, said: 'It's part of normal wear and tear. Deterioration often happens when the body's immunity is compromised and this is more common when one ages.'

Treatment: Regular dental check-ups are key in preventing teeth from ageing badly. Deep cleaning, restoration of teeth, gum recontouring and prevention of excessive wear using occlusal splints are standard treatments.
5 Facial skin

When it ages: Mid-20s and above

Why: The production of collagen and elastin in the skin decreases with age, resulting in skin losing its natural elastic recoil and bounce. Collagen is a fibrous protein which is the basic building block of connective tissues. Elastin is a protein similar to collagen.

Blood vessels decrease in density and skin takes on a yellowish hue. Less sweat and oil is produced by the glands in the skin, making skin drier. Fine lines and wrinkles start to show and skin sags.

Wrinkles appear not only due to the drop in collagen production but also the habitual movements of certain muscles, as well as the loss of fat and bone from the face. Smoking and sun exposure also make you look older because they cause free radical damage which can lead to the destruction of collagen and elastin fibres.

Some women may also start to see melasma, a type of pigmentation which is related to hormonal changes.

Treatment: Microdermabrasion treatments and chemical peels can help to exfoliate and slough off dead skin cells, which can make the skin look dull.

Topical medicines containing vitamin C, E or hyaluronic acid help to deliver concentrated antioxidants into the skin, stimulating collagen production. Cosmetic treatments like fillers and Botox injections to plump up wrinkle lines and surgical procedures like facelifts can also be considered.

Asked if anti-ageing creams work, Dr Patricia Yuen, consultant dermatologist at Pacific Healthcare Specialist Centre, said: ‘Yes. Antioxidants, the main ingredients in anti-ageing creams, reverse and retard the ageing process.’

6 Breasts

When they age: 35 and above

Why: As a woman ages, glandular tissue in the breast is broken down due to changes in hormone levels and is increasingly replaced by fat, which is softer and contributes to the sagging of the breast.

Dr Ivor Lim, consultant plastic and cosmetic surgeon at The Plastic & Hand Surgery, said: ‘Breasts can sag from skin being lax as their sheer weight will pull skin down.’

He added that a secondary reason for breast sag is breastfeeding.

Breast sag is worsened by ligaments of Astley-Cooper - the ligaments which connect chest muscles to the skin and help breasts to maintain their shape - weakening and stretching with age.
Treatment: A bra is your breasts' best buddy. Dr Lim said a well fitting bra is needed to support the Astley-Cooper ligaments and prevent them from stretching out.

Breast skin can be tightened via surgical or radio frequency treatments. Surgical procedures like breast augmentation and breast lift, which involves the rearrangement of breast tissue, can also be considered.

A new alternative is Macrolane, a non-permanent injectable body filler which can be used to plump up ageing breasts. Exercises like push-ups and those which work your mid-back and chest can also firm up your bustline.

7 Body skin

When it ages: Mid-20s and above

Why: Like facial skin, body skin loses collagen and elastic fibres as a person ages. The skin becomes saggy, thinner, less elastic and easier to injure and tear.

Age spots may also develop.

The neck is another giveaway of age. The platysma muscle, a sheet-like muscle found in the front of the neck, becomes loose and splits down the middle, causing neck fat to collect and create the appearance of what is commonly known as a turkey neck. Some people may appear to develop stringy necks which is a combination of loose skin and the platysma hanging down vertically like a curtain.

Treatment: Laser and radio frequency therapies like Refirme ST and Thermage can help remove pigmentation, stimulate collagen production and tighten the skin. In the case of a weakened platysma, Botox can be used to improve the neck’s appearance, while a facelift can be considered to make the sheet muscle look more continuous.

8 Buttocks

When they age: 35 and above

Why: Both skin and butt tissue will be affected by gravity. The well-developed muscle of the buttocks loosens and becomes flabby, creating a saggy bum.

Treatment: Cosmetic procedures like liposculpturing, which uses liposuction to shape the body, can be considered to remove and rearrange fat in the buttocks. Surgical procedures like gluteal implants and butt lifts can restore the perkiness and volume of buttocks. Exercises like reverse lunges, step-ups and squats can also help to tone buttocks.
9 Veins

**When they age:** 45 and above

**Why:** Varicose and spider veins usually develop in legs with age. The former are abnormal dilated veins measuring more than 3mm in diameter while the latter are small clusters of pink and purple thread-like veins lying near the surface of the skin.

The weakened veins are unable to transport blood back up the body to the heart and the blood pools in veins, enlarging them.

The condition is less common in men as it is female hormones which have a dilatory effect on veins. The biggest cause of varicose and spider veins is pregnancy, which puts a lot of stress on veins.

**Treatment:** Regular exercise; avoiding obesity, the wearing of high heels and the crossing of legs when sitting; as well as flexing your leg and foot muscles occasionally, will help prevent the development of varicose and spider veins.

Varicose veins can be treated with endovenous laser treatment, which involves using laser energy to destroy the veins. Spider veins can be treated by injecting them with a cocktail of chemicals.

Dr John Tan, consultant general and vascular surgeon at The Vein Clinic, said: 'The treatment of varicose veins is not purely cosmetic. If left untreated, varicose veins can lead to ulcers or deep vein thrombosis.'

Deep vein thrombosis is a blood clot that forms in a vein deep in the body.

Varicose are abnormal dilated veins measuring more than 3mm in diameter.

10 Muscles and bones

**When they age:** For muscles, 65 and above in both genders. For bones, late 30s in women, late 40s in men.

**Why:** Muscle mass decreases with age as muscle fibres are lost and individual muscle fibres are reduced in size.

As bones deteriorate, they become less compact and lose their calcium content. Women are more susceptible to bone loss due to their biological make-up and the lack of oestrogen during menopause.

As bones shrink, we lose height as bones in the back crumble between the vertebrae and we end up about 5cm shorter by the time we hit 80.

**Treatment:** Exercise is key in maintaining muscle and bone strength. Resistance training in the form of light weights preserves muscle mass and improves balance and bone density.
Dr Sittampalam Krishnamoorthy, consultant orthopaedic surgeon at Raffles Hospital, said that taking regular exercise and a balanced diet which is high in calcium and vitamin D will have a positive effect on bones and joints.