

the high price of height

Cosmetic leg lengthening is a topic that intrigues many individuals. Veena Sidhu looks into what the procedure entails - and if it really can deliver the inches you so desire.

These days, surgery, particularly cosmetic surgery, can do almost anything you request. Hate your nose? Change it! Your ear sticks out too much? Pin it back! Upper lip too thin? Plump it up!

But how far can surgery take you? Can it do something more remarkable, like make you taller?

Turns out, it can. Developed in 1951, leg lengthening was originally designed to help individuals suffering from dwarfism, as well as to correct disproportional leg lengths or repair broken legs.

Of course, for individuals who feel that a few more inches added to their height is what they need, cosmetic leg lengthening seems to be just what the doctor ordered.

It's painful. It's expensive. And to top it off, full recovery of the broken bones may take up to year. Hence, going ahead with the procedure holds serious financial commitments, as well as the gumption to endure the whole painstaking process.

HIGH EXPECTATIONS

Height is regulated by two very important factors - our genes and our nutrition during our growth years. While our genes can determine our height, our diet in large part dictates whether we will achieve our 'potential' height. For example, if we have the potential to be five feet 11 inches, but we do not receive proper nutrition when young, we will likely end up somewhat shorter than that. Once you've hit your twenties, succumb to the fact that that is as much as you're going to grow. Ever.



But before we look into how surgery can help add height, let us first try to understand how height (or the lack of it) can affect an individual in regards to quality of life, social mobility, socio-economic status and employment.

Individuals who are unhappy about their height often have what psychologists call 'height neurosis', 'height dysphoria', or 'short stature syndrome'. These conditions can be present even when an individual is not particularly short. By and large, once these people have added a few more inches to their stature, they feel more confident and can begin their new lease on life.

But why would an individual have height neurosis to begin with? Well, short or tall, there is no escaping the fact that individuals whom society feels are not 'up to mark' in the height department have at some point or another been victims of heightism, which is the act of discriminating against an individual based on his or her height.

There are many examples that seem to point to the fact that taller is better. In regards to success in employment, a 2005 *Forbes* survey revealed that 90 percent of top CEOs were above six feet tall, and only 3 percent were below five feet seven inches in height.

It also seems that shorter people, on average, have had other challenges to face in life. Studies show that shorter people are usually victims of bullying during childhood and adolescence, as they are viewed as incapable of defending themselves and seen as inferior. This could lead to low self-esteem, which could hinder their success later on in life.

Heightism also seems to be a factor in dating and marriage preferences. Studies have indicated that most women find taller men more attractive. Men, too, would rather be taller than their partner, as this implies dominance and power over their mate.

One thing is for sure – whether someone is tall or not, they might consider those shorter than them as inferior and thus treat these individuals differently. Hello, height neurosis!

GIMME HEIGHT!

In the classic tale *Alice in Wonderland*, Alice found a box of sweets labelled 'Eat Me', and when she did, she grew over nine feet tall. If only real life were that easy! Well, few would actually want to be nine feet tall, but surely there are many individuals out there who would love the thought of a growth-inducing truffle.

Alas, reality does bite. But if you do want to 'grow' taller, you will need to pay someone like Singaporean consultant

LEG LENGTHENING FACTS:

1 The bones in the leg are not only the longest bones in the body, but they are also the strongest, as they must support all our body weight when we stand or walk.

2 Surgeons will rarely lengthen both thighs and both shins at the same time. Usually, both shins are done first (considered two bones), followed by both thighs (another two bones) as a second surgical procedure.

3 Lengthening can only be done at one millimetre per day, as lengthening too fast over-stretches the soft tissue. This not only causes pain, but it also makes it more difficult for bone to fill the gap. If lengthening is done too slowly, on the other hand, the bone will harden before the process is complete.

4 Maximum achievable lengthening is about seven centimetres per bone. Therefore, a person can stand to gain 14 centimetres per leg.

5 A patient usually requires a wheelchair for four to six months after surgery, followed by crutches for another four to six months. Unsupported walking is generally allowed after nine to 12 months.

6 Anti-inflammatory pain medication can disrupt the creation of new bone, so doctors recommend minimal pain management during recovery.

7 If an experienced surgeon performs the procedure, risks and complications are minimal. However, risks include those of general anaesthesia such as heart attack, blood clots in the legs, fat embolism and chest infection. Other possible complications include infection, nerve injury, foot or toe joint stiffness, poor bone healing, bone deformity and limb length discrepancy.



Dr. Sarbjit Singh

orthopaedic surgeon Dr. Sarbjit Singh a visit. The first to successfully perform the most high-tech option for cosmetic leg lengthening in Asia today, Dr. Sarbjit is well versed in the surgical art of 'giving one height'.

Dr. Sarbjit is also the founding member of the Association of ASEAN Ilizarov Surgeons (ASAMI-ASEAN), a group dedicated to the development of limb lengthening in Asia. And though he says that no universal standard for ideal height exists, the surgical option is a boon for some who feel they need those extra inches.

"I would recommend cosmetic leg lengthening for individuals with constitutional short stature – that is, they are normal, but genetically short," Dr. Sarbjit says. "This is basically 165cm or below for males, and 155cm or below for females. However, I have done a motivated individual above this height guideline."

This motivated individual is George*. At five feet 11 inches tall, his desire to be even taller led him to cosmetic leg lengthening.

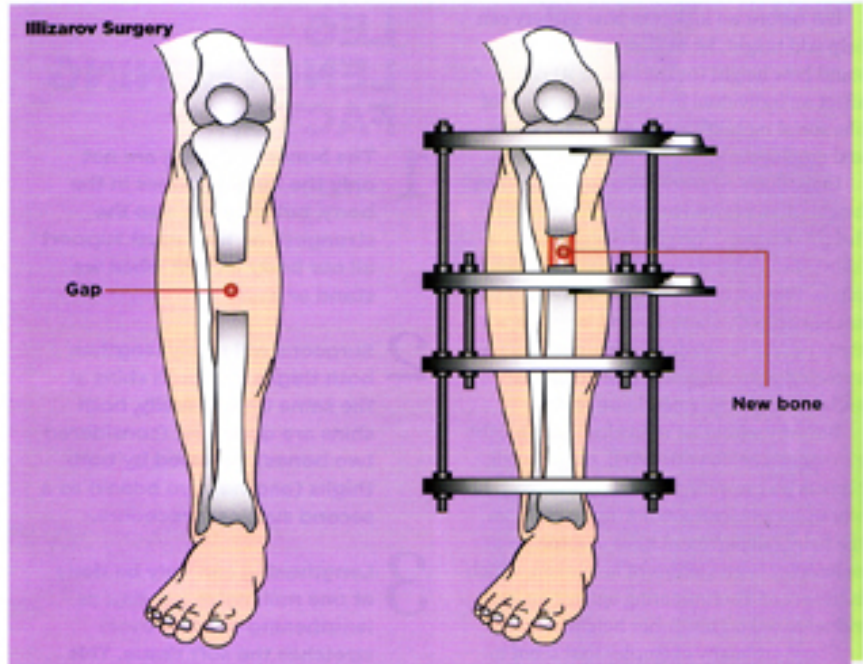
"I had the procedure done two years ago, and I do not regret it for a second," he says. "I had the desire to be taller, not because I was dissatisfied with my height, but I felt that it was more of a quest to be 'better'. My growth was remarkable, and today, I stand taller at six feet four inches."

STICKS AND STONES CAN'T BREAK MY BONES...

... But a surgeon will certainly have to – at least when it comes to leg-lengthening surgery. Termed 'distraction osteogenesis' in the medical world, cosmetic leg lengthening is based on the concept that a surgically created bone fracture can be separated to create a gap, which allows new bone to fill in this space.

The oldest and most common method of leg lengthening is the Ilizarov method, which was developed by Russian orthopaedic surgeon Gavriel Ilizarov in 1951. However, several complications are associated with the procedure. It is extremely painful, and the screws used increase the risk of infection. In some cases, the procedure can cause joint stiffness and result in unattractive scarring. And to top it off, the unattractive, painful-looking frames used in the past, made from stainless steel rings, weighed up to seven kilograms!

In the procedure, the surgeon makes a controlled break in the leg bone. A frame is fitted onto the outside of the leg at the area



The external technique uses the Ilizarov frame to stretch the bone so new bone can form in the gap.

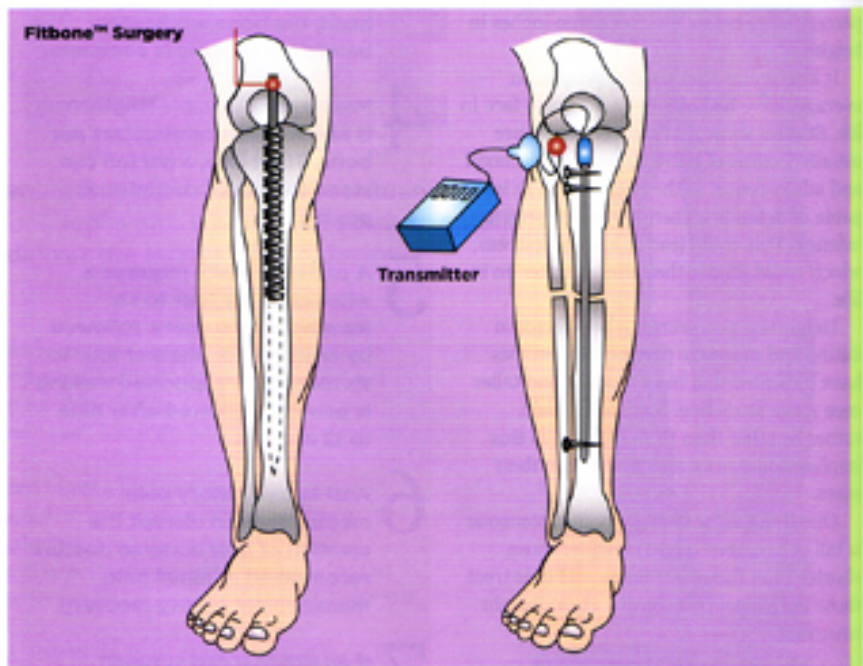
of the break, and screws on either end of the frame pierce through skin and muscle to attach to the bone. The screws are turned one millimetre a day, stretching the bone so that new tissue can form in the gap. Once the gap is filled, the patient will have to continue to wear the frame until the bone hardens, which is usually around four months, before he or she can put weight on the leg.

"The external technique using an Ilizarov frame is more commonly performed because it is cheaper, although uncomfortable and has significant complications," says Dr. Sarbjit.

Today, however, there is a new method available. Dr. Sarbjit tells us, "I usually perform the internal method for leg lengthening using 'Fitbone™' surgery. This is the latest technology in limb lengthening. Being completely internal, it is more comfortable and acceptable to patients. However, the main drawback is the high cost of the implants."

And yes, the implants are expensive. For two bones, the procedure can cost around S\$80,000 (RM184,000) and for four bones, S\$150,000 (RM276,000).

"Essentially, Fitbone surgery involves implantation of remote controlled motorised nails into the bones of the thigh or leg (or both). A few days following surgery, the patient can commence lengthening by using a portable device that activates the antenna and the nail to lengthen gradually," Dr. Sarbjit explains.

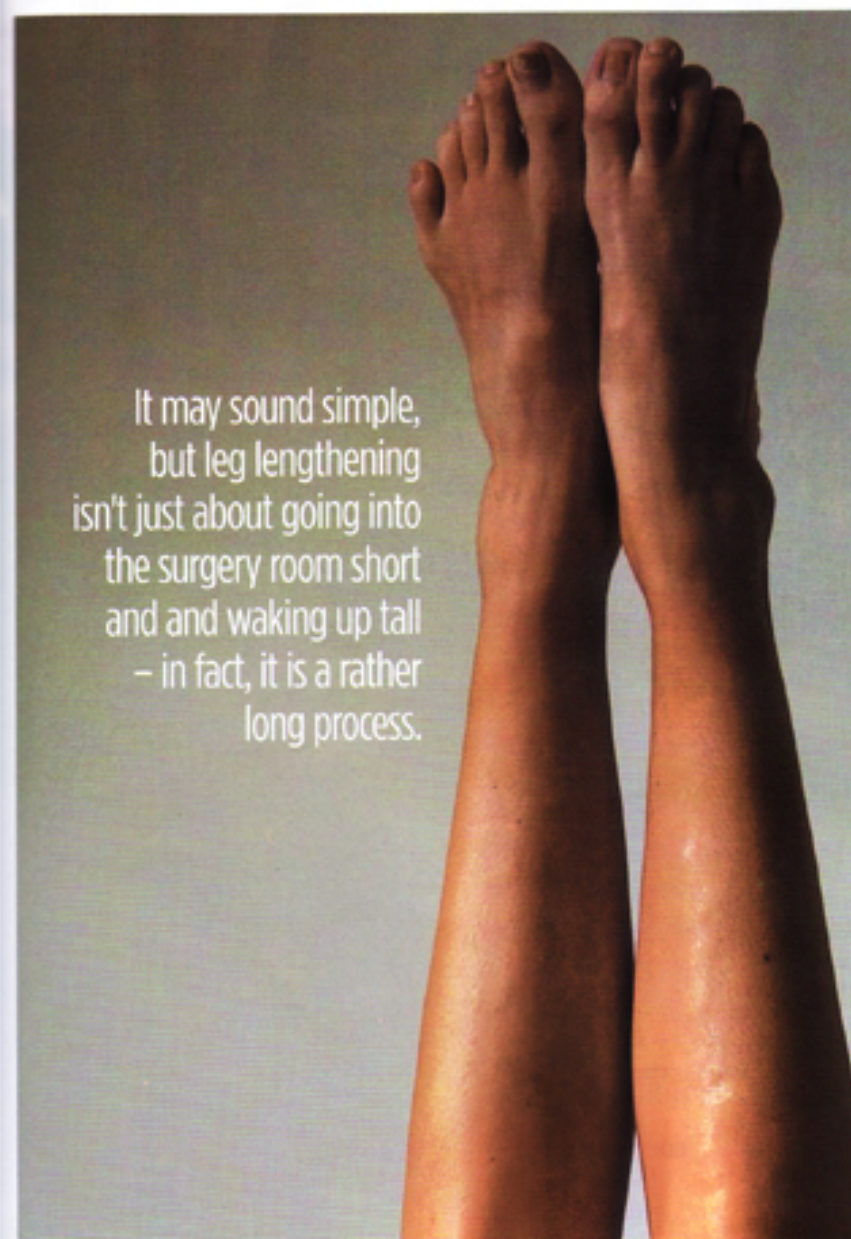


The internal Fitbone™ technique allows the patient to 'self-lengthen' using a hand-held 'remote control'.

"Physiotherapy is the key factor in the healing process. People have the impression that the only pain involved is the bone being broken, but it is also the stretching of the muscles and tendons that have to take place as a result of the extension." – George*, who became five inches taller through the process.



Before **After**
 This patient successfully achieved a seven centimetre final height gain through surgery, from 164cm to 171cm.



It may sound simple, but leg lengthening isn't just about going into the surgery room short and waking up tall – in fact, it is a rather long process.

THE HIGH ROAD

It may sound simple, but leg lengthening isn't just about going into the surgery room short and waking up taller. As mentioned, it is a rather long process – lengthening has to be done at a specific pace to ensure solid and strong bone development, and time is also needed for the bone to solidify after growth so that the 'new' legs can now bear the full body weight once again.

Dedication is also crucial. Quitting is not an option, and daily physiotherapy is an important aspect of the recovery process. Though slightly painful, this will ensure faster and better recovery.

"It is important for the patient to cooperate with physiotherapy to prevent joint stiffness and contractures," advises Dr. Sarbjit.


George agrees. "Physiotherapy is the key factor in the healing process. People have the impression that the only pain involved is the bone being broken, but it is also the stretching of the muscles and tendons that have to take place as a result of the extension," he says. "Physiotherapy helps to stretch the muscles and avoid stiffness. This has to be done every day."

The other thing that you will have to consider is that you will need to depend on someone else for a while. Also, you might have to be prepared to be away from work for a year!

"My advice for those who are considering the procedure is to not go through this alone. If you don't have family support, then get support from other loved ones – do not do it alone. Support will help you focus on the end results, and when you get there, it is a great feeling," advises George.

THE BOTTOM LINE

Leg lengthening, be it to correct dwarfism, broken legs, or merely to gain height, is a very serious procedure. As a patient, you have to be well aware of all the factors and risks involved and take heed of advice given for aftercare and recovery.

Also, though the procedure is expensive, do not be tempted to save cash by going to a cheaper doctor. Expertise is very important, and the choices you make will determine whether you will be able to walk tall – or be crippled for life. If you have the financial backing, dedication and willpower to follow through this tedious and long process, those inches can indeed be yours, and you can then stand proud – and tall(er). 

(*Name changed to preserve anonymity.)