

# Frequent Asked Questions (FAQs) on Leg Lengthening (LL) Surgery

## General Questions and Answers about LL

### **Q: Is it possible to become taller using pills or chemicals?**

A: No. Categorically not. Once you have stopped growing, the growth plates in your bones fuse and this prevents any further growth of your bones. Bones are the major contributing factor to your height. Any company claiming to offer pills, chemicals, machinery or other magical solutions to permanent height increase are trying to scam people. No such solution has ever been proven to work.

### **Q: How does Leg Lengthening work?**

A: It involves one or more of the bones in a limb being broken, and then the two separate parts of that bone being slowly pulled apart (distracted). Normally this involves small adjustments done several times a day. Bone regenerates in this situation, and new bone cells will be produced and will fill the space in the break. The new bone will not be fully hardened (consolidate) for over a year, but should be strong enough to support walking within a few months of surgery. There are a number of different techniques, some involving only internal procedures, others using external and sometimes a combination of the two. The principle was discovered by Professor Ilizarov of Russia, and the standard external device for lengthening or leg correction is called the Ilizarov frame. There are many alternatives, but nearly all are based on the principles discovered by Professor Ilizarov.

### **Q: How much can Leg Lengthening allow me to grow?**

The human body has astonishing growth abilities, and significant height increases have been realised by people with growth deficiencies. Technically, in excess of 12 inches is possible where medical reasons dictate. For cosmetic reasons, most surgeons recommend a maximum of 5cm per limb, but up to 12cm is possible with some techniques. However, excessive lengthening may cause problems with the patient's bodily proportions which may make them unattractive. It may also lead to future health problems such as premature arthritis, bone weakness or muscle atrophy.

### **Q: Which parts of the legs can be lengthened?**

Both parts of the legs - the thighs containing the femur bone and the shins containing the tibia and fibula bones - can be lengthened. However, most techniques focus on the shins due to the lower risk of complications.

### **Q: What are the common sites of limb lengthening?**

**A:** In regard to the lengthening surgery, we usually lengthen the tibiae for cosmetic purposes, as most of people with short status have relatively shorter tibiae, the lengthening of tibiae will make them look more even. The surgery on tibiae is also relatively easy and risk free comparing to femurs (as there are a lot of muscles around the femurs and special cares are needed to keep the patients comfortable during the lengthening). However, the femoral lengthening can be performed for patients with shorter femurs and for larger extent (>12cm) lengthening, in which cases, both tibiae and femurs have to be lengthened under two separate procedures.

### **Q: Does it hurt?**

Yes! There is certainly some pain involved in leg lengthening (LL), but in most cases the pain is manageable using painkillers and therapies. Some people may find the pain unbearable and be able to continue with the treatment, others will experience very little pain and discomfort. In general, internal methods are less painful than external methods but there are no 'pain-free' treatments available.

### **Q: How long does it take?**

For an increase of 5cm (50mm) a normal, healthy adult should expect the whole process to take about 6 months from operation, to being able to walk again. Some people will take longer. For those who are particularly fit, healthy and have a high pain tolerance, it may be possible to do it more quickly. Whilst the bone can regenerate at a rate of 1mm per day, muscles, blood vessels, nerves and tendons grow more slowly, and so a lengthening rate of 0.666mm per day is

recommended as the maximum for a normal, healthy adult. A strong person with an above-average level of fitness may be able to achieve a rate of 0.833mm per day. Some doctors allow 1.00mm per day lengthening, but at this pace of lengthening, muscle and tendon problems are common, especially with the knees and ankles. (Opinion: We strongly advise against lengthening any faster than 0.666mm per day).

**Q: Can both thighs and shins be lengthened at the same time?**

Technically this is possible, but it is strongly discouraged. Very few doctors condone this approach, and some of those that do have had terrible results, sometimes requiring that their patients take years to recover. (Opinion: We strongly advise against lengthening both parts of the leg at the same time. Where a patient feels that they really do require lengthening to both parts of their legs, this should be done sequentially with a gap of at least one year between operations)

**Q: Is it dangerous?**

All unnecessary cosmetic surgery carries an element of danger and should doctors should ensure that their patients fully understand all of the risks and potential complications before they accept them for surgery. Whilst there are very few reports of serious injury or limb loss, it is a possibility with this type of surgery.

**Q: Why does this type of surgery seem to be more common in developing countries?**

There are several possible reasons for this. Firstly, developing countries usually have a lower level of nutrition than industrialised nations which may lead to higher incidences of bone and growth deformities. This means that they often have more doctors focused on this field, and there is a close link between the techniques used to treat deformities and those employed in Leg Lengthening. Secondly, tighter regulation and legal frameworks in industrialised nations make cosmetic leg lengthening very expensive and problematic for surgeons due to the possibilities of litigation and problems with medical regulators. Finally, the average height in industrialised nations is greater than that in developing countries, meaning that demand for such services is greater in the developing world. For example, the average height in the UK is 177cm, whilst the average height in China is 165cm.

**Q: What other factors influence height?**

As well as nutrition, a person's height will be affected by genetics (the height they inherit from their parents or other ancestors), illness and their lifestyle. Some research indicates that young people who engage regularly in sports and have a healthy, balanced diet are more likely to achieve their maximum possible height than a young person who doesn't exercise and has poor nutrition. There are a number of childhood illnesses that can stunt a person's growth, some of them related directly to growth, others that simply affect nutrition (e.g. digestion problems).

**Q: Who is the best LL doctor in the world?**

There is no answer to this question. The best doctor for a particular person will depend on their individual circumstances and requirements.

**Q: Which is the best LL method available?**

There is no answer to this question. The best method for a particular person will depend on their individual circumstances and requirements.

**Q: How much does it cost?**

The full costs for an LL treatment of 5cm are likely to be between 12,500 and 125,000 US Dollars depending on a number of factors.

**Q: How do I work out which method is best for me?**

Use resources like Make Me Taller ([http:// www.makemetaller.info](http://www.makemetaller.info)) to do your research, learn about different techniques and decide which and method is best for you.

### **Q: How much should I increase by before it will affect my proportions?**

There is no set answer to this. It depends on your existing proportions, your height and only a Leg Lengthening specialist is qualified to give advice on this. Once you have chosen which doctor to work with, they will advise you on what increase is possible and also what increase is advisable. There is no other way to answer this question. Everyone is different. It is possible to be 160cm tall with long legs and to be the same height with short legs. There is no formula that will allow you to work out what is possible.

### **Q: How to judge if my body shape is perfect or not before lengthening?**

**A:** Our golden standard for perfect body length balance is 10 (Leg length, distance from feet to belly button):6 (trunk length, distance from belly button to top of the head) and the perfect ratio is around 1.63. This is a standard we use to guide lengthening, and the ratio should be around 1.6- 1.9 in practice. But for individual we do not recommend to use this as only standard, as it depends on the individual's body shape and functional requirements.

### **About LL in Beijing Institute of External Fixation**

#### **Q: Has the LL surgery been banned in China since November 2006, does this affect your hospital?**

The cosmetic lengthening is not completely banned in China, however the Chinese Ministry of Health requires LL surgery only to be carried out by experienced orthopaedic surgeons with orthopaedic facilities from November 2006. This is of course to ensure the safety of the patients, as some surgeons are doing this for the sake of money without proper training and experience, so that the outcome can be bad.

Our hospital is the only one in China who is specialized in external fixation and Dr. Xia is a world leading orthopaedic surgeon specialized in cosmetic and reconstructive leg-lengthening. Despite small in size (with 100 beds), we are one of the best specialist orthopaedic hospital that can perform LL in China. We have treated more than 100 overseas patients and over 1,500 Chinese patients for LL procedure over the last 8 years, and 99% of them had good outcome. We will treat any complications free of charge for the patients treated in our hospital and in fact we have successfully treated many patients who had complications after LL surgery performed in other Chinese hospitals. Since our hospital is the one who have all the necessary skills and experiences for cosmetic lengthening in China and we are still allowed to carry out cosmetic lengthening surgery.

However, at the moment we would like you to keep a low profile about your cosmetic lengthening only surgery and we will generally perform cosmetic lengthening surgery for people suffering from height related stress, or with congenital and acquired deformity, or for leg reconstruction due to trauma, tumour or congenital diseases. For all the overseas patients, we will sign a contract of mutual understanding that it is the patient's will to let us perform the LL surgery and we never persuade any patient to do the surgery unnecessary or purely for the seek of profit. We felt that the technique is such unique and it should be made available to help people like you. You should appreciate for the quality of the service we offer, the price is very reasonable and we are not money makers at all. The same LL procedure (about 5 cm without guarantee) in the USA will cost you at least \$85,000 for the surgery only plus hospital stay fees, physiotherapy fees and all other fees, that can add up to a bill of over \$1000,000.

When asked by the related authorities (highly unlikely), it will be helpful that you could admit that you fall into one of these conditions (e.g. suffering from height related stress, so that the surgery is more justified on medical grounds). We believe that cosmetic lengthening is by patient's choice, and this is part of basic human right (such as gender change surgery) and the government or any authority has no right to ban this surgery. We hope that the regulation will change soon. We will try our best to stay open the LL service to patients like you both at home and abroad.

### **Q: What are the standard surgical procedures are for cosmetic lengthening in Beijing Institute of External Fixation Technology?**

**A:** After the patients are admitted into our hospital, the first surgery is performed under general anesthesia, intramedullary nails are inserted into the tibial or femoral bone marrow cavity, and a pair of circular external fixators is then attached to the tibiae or femurs. The first operation is the most important one and it will take about 1-3 hours. After the surgery, patients will be given pain killer for the first week and stay in bed. One week after the surgery, patients are encouraged to

walk with walking aid, and the lengthening starts. The patients are instructed to turn the fixators themselves using a small key, usually 4 times a day, a few turns each time to ensure a daily lengthening around 0.5-1.0 mm. The rate of lengthening will be adjusted according to the x-ray. Usually, x-ray is taken every 2-3 weeks to monitor the lengthening process. For 10cm (4 inches) lengthening, the lengthening phase may take 5-6 months, during which period, patients are encouraged to bear weight and walk as much as he/she can with walking aid and carry out some necessary physical exercise to maintain leg function. After the planned lengthening (e.g. 10cm) is achieved, the external fixators will be removed under general anesthesia and at the same time the internal fixators (intramedullary nails) will be locked through locking screws, this will provide strong internal fixation and allow full weight bearing exercise and speedy recovery. A few weeks (2-4 weeks) after the second surgery, you can return to work and be discharged from the hospital. You can not do competitive sport (such as football) for the next 12 months to allow bone to fully consolidate. You can go back to normal life with the internal nails for approx. 1-1.5 years, and then you will need to remove the nails, this is a simple procedure and you only need to stay in hospital for around 10 days after the nails being taken out. After this, you can go back to full normal life gradually.

**Q: How long does the height increasing procedure take?**

**A:** The duration of the procedure depends on the amount of the lengthening and the individual bones' regenerative abilities, differing with each patient. The period of first surgery recovery is 7~14days; the lengthening period is: Centimeters lengthened times 12-15 + 10 (days); (e.g. for 10 cms it needs 130-160 days, approx. 5-6 months). The period of full functional adaptability is about 1 month per cm following the lengthening. The time for hospitalization would be around 4-5 months for 8-10 cm lengthening depending on your body's recovery ability.

**Q: What are the acute side effects of the height increasing procedure?**

**A:** During the limb lengthening procedure there may be such side effects as pain, itching, inflammations, pin site infections and slow consolidation of the lengthening gaps. However, since the patients are under our physicians' control, serious complication such as loss of leg function is rarely happened. Most of the minor complications are dealt with promptly and free of charge in our hospital.

**Q: What is the long term effect of limb-lengthening?**

**A:** Leg lengthening procedure is a kind of controlled fracture healing and once the bone is healed, there is no long term effects on the lengthened bone, as bone is under constant remodeling, hence the newly formed bone is as strong as the intact original bone. The real concern is on the long term mechanical effects on the joints. As change of height and bone length, will lead to change of body balance and loading pattern on the joint will be changed. However, our body can adjust the gait pattern to adopt the changes, and it will take a few years for the body to fully adapt to the new changes. During this period, we will recommend modest exercise. We have several patients who had leg lengthening surgery 15 years ago and none of them complained any serious complications such as arthritis. The long term effect of cosmetic surgery (20-40 years) is not yet known and we don't anticipate any major complications at this stage based on our clinical observations.

**Q: What is the general clinical outcome of the height increasing procedure in your institute?**

**A:** Till December 2006, we have performed leg lengthening surgery for more than 1,500 cases. Patients were from USA, Italy, Canada, Singapore, South Korea, Denmark, Japan, Hong Kong, Taiwan and all over China. Most of the patients are suffers of short status and 80% of the patients have postgraduate degrees, aged between 14-52 years, (average age: 22.6 years). The height before surgery was between 117-175 cm (average 152 cm); the average increased height was 8.6 cm (3-33 cm). Among the patients, there are three cases of serious complications, bone nonunion 2 cases (1 case was caused by fast lengthening rate; another was due to diet problem, lack of nutrition), ankle joint deformity 1 case (the patient was 52 years old and has other medical conditions). All the three cases were treated by secondary surgery with satisfactory outcomes. Overall, 99% of the patients were very satisfied with the outcome of their treatment. At present, serious complications such as bone nonunion have been completely avoided by using Xia's leg-lengthening technique, only minor complications such as mild pinhole infection (in less than 0.5% patients) are occasionally seen and are dealt with easily.

**Q: Once the treatment is completed, will my legs be as strong as they were prior to the surgery?**

**A:** The bones will fully regenerate several months after the operation completed and they will be as strong as before the treatment.

**Q: At what age is it possible to undergo the cosmetic height increase procedures?**

**A:** The age of patients may be from 16 to 45 years, in rare cases the age limit can go up to 50 plus years for combined lengthening and deformity correction treatments.

**Q: I am a 50 year old male. My height is 154 cm. I would like a maximal lengthening (170 cm up). Is it possible to undergo the cosmetic height increase at my age?**

**A:** The age for cosmetic leg lengthening is usually between 18-45 years old, the younger the better. However, Dr. Xia has performed cosmetic lengthening surgery in several cases for patients older than 50 years. For the older patients, the healing is bit slowly and we may lengthen at a slow rate, this means that you may have to stay in our hospital for longer period. But this can be done; we can also perform plastic surgery to remove the scars after the lengthening procedures (at reasonable costs). In your case, we will recommend you to come to our hospital and accessed by Dr. Xia in person, we can decide from there, as it is unfair for us to promise you anything at this stage.

**Q: Is there a limit for height before surgery that can undergo LL in your hospital?**

We use 1.50m for woman and 1.60m for man as a clear cut for short stature definition. To this end, we do not encourage people of normal height to go through cosmetic lengthening blindly or only for the sake of getting a few cm taller. We will normally recommend our patient to think twice on why and what they will achieve in getting the leg lengthening surgery done. As it is crucial that the patient must have a strong determination and willingness to cooperate with the treatment, as this may be a lengthy procedure (6-10 months). However, we do take people (man or woman) taller than 1.60 m for cosmetic lengthening, to meet their special needs (job, life and others). In fact, for taller people, the lengthening is relatively easier as the percentage of total lengthening is smaller for the taller people than the shorter people for the same length of lengthening, hence the risk of complications is less.

**Q: Can the leg be lengthened more than 10 cm? I would like to achieve about 5 inches! Is it possible? After the leg lengthening will my legs feel and move as they did before the operation?**

**A:** 10 cm lengthening at a time is recommended and usual practice in our institute. If you want to achieve more than 10 cm, then you need to do it in steps, eg. 10 cm lengthening on the tibiae first and wait for their full recovery and then do 8-10 cm lengthening on the femurs. This is to ensure the safely and function of your elongated limbs. It is possible to achieve 5 inches lengthening all together over time, but this can not be done in one surgical procedure and you have to prepare two procedures to achieve this. After the lengthening, you will need time to adopt the changes and you have to take extra care not to participate competitive sports such as footballs and others for approx. 1.5 years to allow full recover of the limbs. However, you can resume your normal life and work approx. 6 months after the surgery. You may feel slightly different once you are taller, and you have to readjust the way of walking accordingly, however you will get used to it very soon.

**Q: Is femoral lengthening not recommended because it has the possibility of having more complications?**

**A:** No. As most of short people have relatively shorter tibiae, so that tibial lengthening is usually recommended. In addition, there are more muscles around the femurs, so that this makes the wear of the frame a little more uncomfortable when comparing to the tibiae. You should not worry about the complications as in fact femur is much easier to heal to tibiae due to its abundance of muscle and vascular supplies.

**Q: Is it possible to increase the height 20cm more?**

**A:** Yes, it is possible to lengthen 20cm in two steps (on tibiae and femurs). We can only lengthen 10cm at a time and you need to wait 1.5-2 years in between the two surgeries. We can lengthen more than 20cm with repeated surgeries, but you need to allow time in between surgeries for your limbs to recover.

**Q: Do you allow patients of 6 -foot height to undergo such surgery?**

**A:** We can perform cosmetic surgery for tall patient without any problem. In fact it is relatively easy to lengthen a tall person as the relative lengthening percentage is smaller in the taller person than that in the short person for the same length, so the risk of complication is also smaller in the tall person. However, we need to make sure you are fit for the surgery and you do it for a good reason.

**Q: Can I talk with other Americans who have completed the surgery?**

**A:** Yes, we have US patients in our hospital and Canadian patients in our hospitals. But we can not disclose our patient's details without patient's consent. You can of course visit our hospital and talk to the patient here.

**Q: Will patients be in wheelchairs for part of the treatment?**

**A:** Patients don't need wheelchairs during the treatment, at early stage of the lengthening phase; patients will walk with a walking aid. Some patients do use wheelchair when they are not walking or standing to get around during lengthening.

**Q: Could you tell me something about the doctors that operate at your center? What are their qualifications?**

**A:** Dr. He-Tao Xia, MD, is an orthopaedic surgeon and the founder of Beijing Institute of External Fixation Technology and he will be the lead surgeon for limb lengthening procedure. During the last 30 years, Dr. Xia has developed the safest method for cosmetic limb lengthening in the world and performed more than 1,000 successful cases of leg lengthening surgery. Dr. Xia has a team of 4 Orthopaedic surgeons; all are trained and specialized in leg lengthening surgery with extensive operative experience.

**Q: What if the patient wants to increase height and correct the shape of the legs as well?**

**A:** It is possible to perform limb lengthening and correction the leg deformity during a single procedure. This procedure is like the limb lengthening operation and takes almost the same time.

**Q: Are there any international patients in your Centre now?**

**A:** Yes at the present time there are foreign patients from United States, Canada, Japan, South Korea, England, Denmark, Poland and Singapore. These patients are undergoing LL procedures in our hospital.

**Q: Can you also lengthen arms to provide a balance for the new length of the legs?**

**A:** We can perform the upper arms lengthening procedures only in cases with very big visible disproportions of the body, legs and arms.

**Q: Do I need to book my surgery and how can I arrange to come to your hospital for the treatment?**

**A:** It is not necessary to have a pre-surgery consultation and checks, as we can do this one go before the surgery when you are here in our hospital. Please check if you meet the conditions for cosmetic leg lengthening on our website: <http://www.leg-lengthening.com/advice.html> and if you are, then you can decide a time and book your flight and let me know in 2-3 weeks advance, then we can arrange your hospitalization and treatment accordingly, we can also assist with your visa application and arrange your airport pickup (these are all included in the price of the package).

**Q: Is it possible to lengthen both tibiae and femurs at the same time but don't want to have to go through all of the process twice.**

**A:** We never perform surgery on both tibiae and femurs at the same time, as this will have serious impacts on the functional recovery of the lower legs (due to unable to move properly for a prolonged time), thus it may have long term complications. In some cases where patients require extensive lengthening (say more than 20 cms) then we will perform lengthening on both tibiae and femurs, at different times (to finish one treatment and wait for a while before another). If you would prefer a perfect body/leg length balance, we will recommend you to lengthen the tibiae to 8 cm in the first instance, which is more realistic and risk-free and you may consider to lengthen the femur to further 5 cm at later date, although this will cost you time and more money.

**Q: I have a 6 year old child with achondroplasia is it too early for this age group to perform the single procedure of limb lengthening and bilateral leg deformity (bowing )?**

**A:** We usually don't recommend surgery for young child (below 10-12 years old) suffering from achondroplasia, as they are still growing and the deformities may re-occur with the continuous growth. The best time would be around 15-18 years when the longitudinal growth is nearly complete, we can then consider limb lengthening or deformity correction. However, if the bowing deformities are very severe that has affected the normal walking or living activities, then we can consider surgery at an early age, as it is essential to preserve the normal motion and function of the knee and ankle joints. In this case, the patient needs to be assessed by an orthopaedic consultant and decide accordingly.

**Q: How long does the surgery take and what pain relief is provided?**

**A:** The first surgery will only last about 45 minutes to 2 hours and the second surgery will last about 45 minutes, both under general anaesthesia. Immediately following the first surgery, we will provide pain killers to the patients for approx. 1 week, and thereafter patient is able to walk with walking aid without the need of any pain killers, but pain killer will be provided should the patients need them for as long as it takes.

**Q: I was hoping you could tell me more about the medications I will be taking during the recovery process such as pain killers and dosages.**

**A:** All the surgery will be performed under general anaesthesia and you may only need pain killer for the first week following surgery and after that no pain killer is needed in most of the patients, as most of the pain killers have some adverse effect on bone healing, however, the pain is very mild and well tolerated by majority of our patients. We will give you advice on the diet and we encourage a balanced diet to ensure enough nutrition for the bone recovery, you can of course restrict the intake of calories (but not the proteins).

**Q: What are the chances of me getting infection after I leave the hospital? Will I ever get serious infection by taking a shower, go swimming, running, or just everyday walking?**

**A:** If you read carefully about the leg lengthening surgical procedure published on our website, you will understand that after the external fixator has been removed, your bones will be fixed with the intramedullary nails inserted during the first surgery by locking screws. After this, there will be no nails/pin hole visible outside your legs. Hence the infection is nearly impossible. In addition, you will stay in the hospital for 1-2 weeks after the nails are locked. Remember, that the nails are already in place during your first surgery and should there was any infection; we should find it out during your lengthening period (3-4 months) while you are in the hospital. The infection is very rare in leg-lengthening cases, if you understand the biology of leg-lengthening, you will know why: because during the leg lengthening the blood supply to the lengthened legs are increased to 300-500% to normal level, and bugs can not really grow in an area where blood supply is so rich (as many white blood cells will kill the bugs very quickly). We have over 1,500 cases lengthening done, not a single case failed because of infection.

**Q: Will there be any bone infections during or after the operation? Has anyone experienced it?**

**A:** There is risk of infection as it goes with any surgery. In our hand, the bone infection during and following lengthening is very rare, and we only see 2 cases over the last three years, and they are all treated well. If you understand the biology of leg lengthening, in fact lengthening process promotes blood vessel formation and increases blood flow to the legs, hence reduce the chances of infection. Pin-hole infection is most common and this can be dealt with easily.

**Q: Can you do 10cm shortening because then I would be satisfied with the change.**

**A:** We can help to shorten 10cm of your legs, this is the revise procedure as leg lengthening, we have to take off 10cm bone first, and then fix your legs with external fixators, gradually compress the gap to allow shortening while maintain the normal physiological functions of your leg. This procedure may take 4-5 months, and during which period you will stay in our hospital. The total cost is \$25,000 all inclusive, all the surgeries, hospital stay, foods and free internet access for the entire duration. Please let us know when you would like to come for the treatment

**Q: If femurs are to be lengthened to 11 or 12 cm. (not 15), does this require two separate stages? I mean, it's only 1-2 cms after 10 cm.**

**A:** This may be done with one operation procedure, but we don't recommend it as this increase the risk of non-union. If you want to do it this way, it is your responsibility if anything went wrong from there.

**Q: Do some of the staff speak English and are any of your other patients English?**

**A:** Yes, we have several dedicated staff who speaks good English to look after our international patients. We also have a dedicated international officer Ms. Roone Wang who speaks good English to look after all the overseas patients.

**Q: How many people are in the hospital at any one time having this procedure done?**

**A:** We have at the present time over 60 patients in our hospital undergoing the cosmetic lengthening procedure, most of them are of course Chinese patients.

**Q: Does the veins, nerves, muscles grow together and does the lengthening of veins, muscles etc has any side effects.**

**A:** All the tissues you mentioned will grow together as a result of the lengthening treatment; this is called "tension stress effects on tissue regeneration". Leg-lengthening mimics normal leg development as we did in our childhood, so that there is no long last side effect once the procedure is completed.

**Q: If I build up the muscles on my legs through physical exercise will this improve the recovery period?**

**A:** Yes, to stay fit definitely will help you to have a speedy recovery, and most of young patients are able to go back to their normal life 3-4 months after the surgery, and come back in about 1.5 year's time to remove the intramedullary nails.

**Q: Whether I can perform normal office work after the implantation of internal fixator? Is it wise for me to get back to my normal job or rest as much as possible at home until the removal of the internal fixator?**

**A:** Yes, this is perfectly possible and shortly after the removal of external fixators, you can go back home and back to office work. But you are not recommended for competitive sport for the next 1-1.5 years. Most of people go back to normal life with internal fixators and come back to remove them after approx. 1 year once bone is fully consolidated.

**Q: for a gain of 10 to 13 cm on one surgery, will the nerves, tendons and muscles able to cope with it? Will there be any side effect or permanent damage in the later part of the years?**

**A:** We have experience of cosmetic lengthening for over 12 years and have performed over 1,500 cases. We have overcome all these complications you have concerns and you can expect if we are not confident about our technique, we will be bankrupted by now. There will be some up and downs in each case, but we can help you to overcome any complications and there will be no permanent damage in the later life as far as we have known (the cosmetic lengthening in principle is just like a controlled fracture healing, so that once it is healed, from anatomy and physiology points of view, there should be no long term side effects). It is therefore better for you to stay in the hospital so that we can have a close eye on you and adjust your treatment accordingly and avoid any serious complications.

**Q: Do you need to operate on the Achilles' tendon for a 10cm lengthening? Because I read from some leg lengthening sites that 5 to 7 cm is the maximum lengthening on the tibia without operating on the Achilles tendon.**

**A:** No, our special technique allows Achilles tendon to be lengthened at the same time and there is no tendon lengthening is needed for the 10 cm tibial lengthening. Our technique is very novel and this is our unique development.

### **The Costs of LL in your institute**

**Q: How much does the height increasing procedure cost in your hospital?**

**A:** The total cost of the procedure including all necessary expenses is from \$25,000 to \$28,000 US (18,000-20,000 Euros) dollars depending on the clinic and the accommodation and service conditions required.

**Q: Why is your place more affordable compared to other leg-lengthening hospitals around the world?**

**A:** Because we are not greedy. The living costs and staff costs are relatively cheaper in China at the present. We are mainly looking after Chinese patients here, and \$25,000 is quite expensive to most of the Chinese patients. But we more or less charge the same for the foreign patients, to be fair and equal. If you are complaining about the price is too cheap,

we can double your charge for good. We believe that our price is reasonable and this will make our service more accessible to most of patients in China and Overseas. But our service is not compromised. We can not comment on the price charged by other hospitals or countries, as they are all different from us.

**Q: are there any additional costs, for example if complications set in would there be additional costs and how much would these be?**

**A:** The cost for standard 10 cm cosmetic lengthening on either tibiae or femurs is \$28,000 (US dollar) or 20,000 Euro all inclusive for the surgery and in hospitalization for the up to 4 months. If unlikely complications occurred during the LL process in our hospital, we guarantee to treat the complication with no additional cost. However, if the complications were not due to the current treatment or no compliance of the patients, then there may be additional charges. We will explain the likely risks and responsibilities of both parties involved, and sign an agreement of mutual understanding before the surgery.

**Q: Can you have Internet access and what is the cost of this?**

**A:** There is free internet access in the hospital bedroom, and there is no additional charge for using this (which is included in the hospital price).

**Q: Are you able to get shopping brought in if required?**

**A:** Yes, we can provide shopping service according to your demand; free of charge (of course, you need to pay for the shopping).

**Q: Can I go back to the USA during the recovery process?**

**A:** Yes, you can. Once the external fixators are removed following successful lengthening, your legs will be fixed with intramedullary nails and you can go back to normal work and life, and it will take 10-12 months for complete bone remodelling, and you can then come back to take out the nails.

**Q: I was wondering if you offer FITBONE technique. I read that it is the most comfortable and quickest way to lengthen legs.**

**A:** We did not offer Fitbone technique as this is implantable device. We have tried it once before in our hospital, but the result is not very satisfactory, it can only lengthen a small (less than 5cm) length, and it is very expensive (at least 5-10 times more expensive than the technique we offer). Our technique is very reliable and we can guarantee the treatment results and also the scar is a minimal issue, our expense is very reasonable. The patient should make up their own choice depends on their needs and financial situations.

**Q: Are there laundry facilities for your clothes, and a shop where you can buy toiletries etc. Making phone calls and things home, can international phone cards be used etc?**

**A:** In the hospital every room has free Internet access and you can call home using telephone or Internet phone at very reasonable costs (in the case of Skype, it is absolutely free over the Internet), and we will provide shopping or other services to all in hospital patients. There is an English speaking assistant who look after all the overseas patients. Besides, you are able to go out of hospital during the treatment from time to time for sightseeing (the hospital will arrange it). There are more than 60 patients in our hospital undergoing cosmetic surgery at present, including patients from the USA, Canada, Japan, India and of course China.

**Q: I can only afford to do the surgery for around \$10,000; can Dr. Xia go for this price?**

**A:** The minimal cost for the package you are having will be \$20,000. Unfortunately we can not offer our service for free or at a price below the actual costs. The service of \$20,000 package includes: First time consultation, examinations, costs for first surgery including all lengtheners and surgical procedures, and 20 days hospitalization; Second time surgery for removal of external lengthener, 10 days hospitalization. The \$25,000 package includes: First time consultation, examinations, costs for first surgery including all lengtheners and surgical procedures; Second time surgery for removal of external lengthener; T; Hospitalization for up to 4 months. Some cases the patient may need to stay in the hospital longer and there will be additional charge for the extra hospitalization.

**Q: According to the website, it will include the hospitalization for up to 4 months. Does this mean it will include the accommodation expenses to stay in the hospital after the second surgery until the removal of the internal fixators?**

**A:** Yes the cost includes your hospital stay for up to 4 months. But most of patients will leave the hospital after the second surgery as there is nothing special for treatment terms, and patients usually go back home or normal life, to allow the bone to consolidate for approx. 10 months - 1 year, and come back to the hospital to remove the intramedullary nails for the third surgery, which only require to stay in the hospital for 7-14 days for caution. The cost for the third surgery is around \$1,500 and it is not included in the package price.

**Q: How to pay? Bringing \$15,000 US is it dangerous? How do foreigners usually pay for the cost? Is there security box in the hospital where we could keep our cash and valuables?**

**A:** You can bring \$10,000 cash by law, and most of foreigners pay cash or using traveller's US dollar cheques (you can buy this from any bank). You can leave some of your valuables such as cash to our hospital to keep for you and ask them back anytime you need. But in general the hospital is pretty safe as it is a private hospital.

**Q: What are the items I need to bring?**

**A:** Anything personal, such as clothes, PC and books. Other small items can be purchased here in Beijing very easily and cheap. The beddings and food are provided by the hospital.

**Q: Will it be better to stay in the hospital throughout or stay in apartment after the surgery? Will the doctor check more often on my leg if I stay in hospital?**

**A:** Our advice for you is to stay in the hospital for the entire treatment, this will allow our doctors and nurses look after you on daily bases and also give you chance to share the experience with other patients undergo the similar treatments. The hospital will provide food and TV, Internet as well. To stay away in an apartment may or may not save money, it certainly can be quite stressful if you have to cook, come to the hospital regularly and also when you need help, you may not get it in time. Our hospital has staff nurse and doctor on call for 24 hrs and you can get assistance on anything you need there.

**Q: Do I get to stay in my own room when I am in the process of recovering? Should I bring many clothes or are you going to provide some?**

**A:** Yes, you can have a single room. The beddings are provided but not the personal clothes. Everything can be purchased here if you need at very modest costs, so don't worry to bring in a lot of things. You may only need laptop and your reading materials.

### **About Scars**

**Q: How many scars should I expect from this surgery? How big are the scars?**

**A:** There will be some longitudinal scars along the pin pathway during the lengthening. Most of the scars will be softened after 1-2 years following the surgery. Some people have more scars due to their body's difference; we can offer cosmetic surgery to remove the scars at very reasonable cost after the lengthening is completed.

**Q: Where would the scars of the surgery be located on the leg? Will they be obvious scars that are long and deep, or pin-hole shaped scars? Also, if anything goes wrong will all the other surgeries be included in the \$25,000 fee?**

**A:** There will be some scars on the lower limb and if it is necessary, we can perform cosmetic surgery to remove the scars at the end of the leg-lengthening, with a reasonable cost. Any complications during the treatment under our contact will be dealt with by our hospital without additional charges, which is rarely happened in the past.

**Q: What are the scars like are they very noticeable? Is there anything I can do to reduce them i.e. laser surgery?**

**A:** The scars on your legs will become soft with time, and it depends on your body's reaction. Somebody may develop noticeable scars, some don't. We can offer cosmetic surgery to remove the scars at the same time of removing your intramedullary nails at the third surgery, at a very modest (discount) price for our patients. After this, your scar will be very small (liner scar) and will be nearly invisible with time.

**Q: What is the novel point of your surgery from the traditional Ilizarov technique?**

**A:** Our surgical technique is very novel in that we insert an intramedullary nail at the same time of putting the external lengthening frame in the legs. The external frame (lengthener) is needed to lengthen the bone, at a speed of around 1 mm/day. Once the desired lengthening say 10cm is achieved (over approx. 3 months lengthening), we can remove the external frame and lock the intramedullary nails, so that you can bear weight while the new bone is consolidating and remodelling. To do so, you have minimal discomfort and the time for bearing external frame is greatly reduced.

**Q: You mentioned being able to perform scar removal surgery with the third operation at a discount price. Can you please give me a quotation of how much this will cost as the scar removal is very important to me. Will this be done by lasers?**

**A:** The scar removal cost is about \$200 per scar (maximum charge for \$1,000 per leg); you may have 4-6 scars need to be removed. For small scars, you can do with laser, but for larger ones, it is cheap and quick to do it by cosmetic surgery.

**Q: How scar removal is performed with cosmetic surgery?**

**A:** The scars are removed by a sharp knife and then the skins are sutured back with very fine needles and fine sutures, this will ensure you end up a very fine/line scar. This is like all the cosmetic scar removal (for the larger ones, like burn scars).

**Q: Do I need to bring extra money in case of an infection?**

**A:** No, we will sort out any complications for you free of charge during your treatment in our hospital, free of extra charge that is so called "guaranteed" success.

### **About Chinese Visa**

**Q: I am a British citizen. Will I need a visa to stay at your hospital for so long? Should I book my flight before or after arranging the visa? Can you kindly advise me of how I should go about planning this?**

**A:** You need to apply a visitor's visa from Chinese Embassy in London or Edinburgh, this is very easy to obtain and will entitle you to stay in China for 3 months. Once it expires, we can help you to extend the visa for further 3 months, and this will be sufficient time for you to get well and back to the UK. Please get the visa and then book the flight, do shop around, as you can get very good deal for flights to Beijing. Just go for a single ticket or open return ticket (if it is not too expensive). Please check with <http://www.omegatravel.net/> for flight from UK to China.

**Q: I have a visa application which asks for the and 'Place to visit'. I wanted to ask you if I should put 'Limb-lengthening/orthopaedic surgery' and your hospital address. For 'Duration of stay' should I put 3 months or 6 months?**

**A:** 'Purpose of journey': Sightsee /Tourist; 'Place to visit': Beijing and other cities; 'Duration of stay': 3 months

Don't mention you are coming to Beijing for a treatment, this may delay your visa and you may have to show your health checks, AIDS, and health insurance documents, so just say you will be sightseeing in Beijing and other cities for approx. 3 months, it is quite easy to get a 3 months tourist visa (6 months visa, you may have to provide all the medical documents), and we can help to extend the visa while you are in China.

**Q: What do I have to do to attain a visa?**

**A:** Just go the nearest Chinese embassy to apply a tourist visa, you can stay for 3 months on tourist visa, and then we can help to extend the visa for extra 3 months. Don't mention you are coming to medical treatment, this will complicate things and you may be asked to provide a lot of certificate, such as AIDs and so on.

**Q: I read on your website that patients need to come in for a follow up checks every 3-4 months till the removal of the internal nails. I live in overseas and it will be hard to make frequent trips back and forth. Are there any other alternatives or is it mandatory?**

**A:** Overseas patients only need to have x-ray check up in their own country and send the x-ray to us via e-mail, so that we can advise if there is anything wrong and need attention. Usually, patients only need to take x-ray every 4 months to allow access the progress of bone consolidation and after 1 year, the patient can arrange to come back to remove the nails and this is a simple procedure, patients only need to stay for 7-10 days in our hospital for this.

**Q: Would you please call me for a consultation?**

**A:** Due to our limited resource, we don't offer telephone consultation and we can only answer your specific questions via e-mail. For more general questions, re the surgical procedures, costs, hospital stay, etc. please visit our website at [www.leg-lengthening.com](http://www.leg-lengthening.com)

**Q: Go back to China after 1.5 years to remove the internal fixators? Now can I have a US doctor remove the internal fixators? Or do you prefer I come back to China to do that? How long will I be hospitalized at that time?**

**A:** Yes, you can get the nails removed by an American doctor, but you may have to pay extra. The price for removing the nails is not included in our package and you can do it anywhere you wish.

### **How to contact you**

**Q: Who should I contact in Beijing or for my treatment once I arrived in Beijing?**

**A:** Please contact Ms. Ronne Wang (our international officer) at: [leglengthening@yahoo.com.cn](mailto:leglengthening@yahoo.com.cn) and her office telephone number is: Tel: 0086-10-68283645 or 0086-10-68216481 (8:00~22:00 Beijing time). Mobile: 13621226277 for your appointment for a consultation or discuss your airport pickup and surgery schedule once you are in Beijing. Ronne Wang is our international officer, who looks after all the overseas patients and she speaks good English.