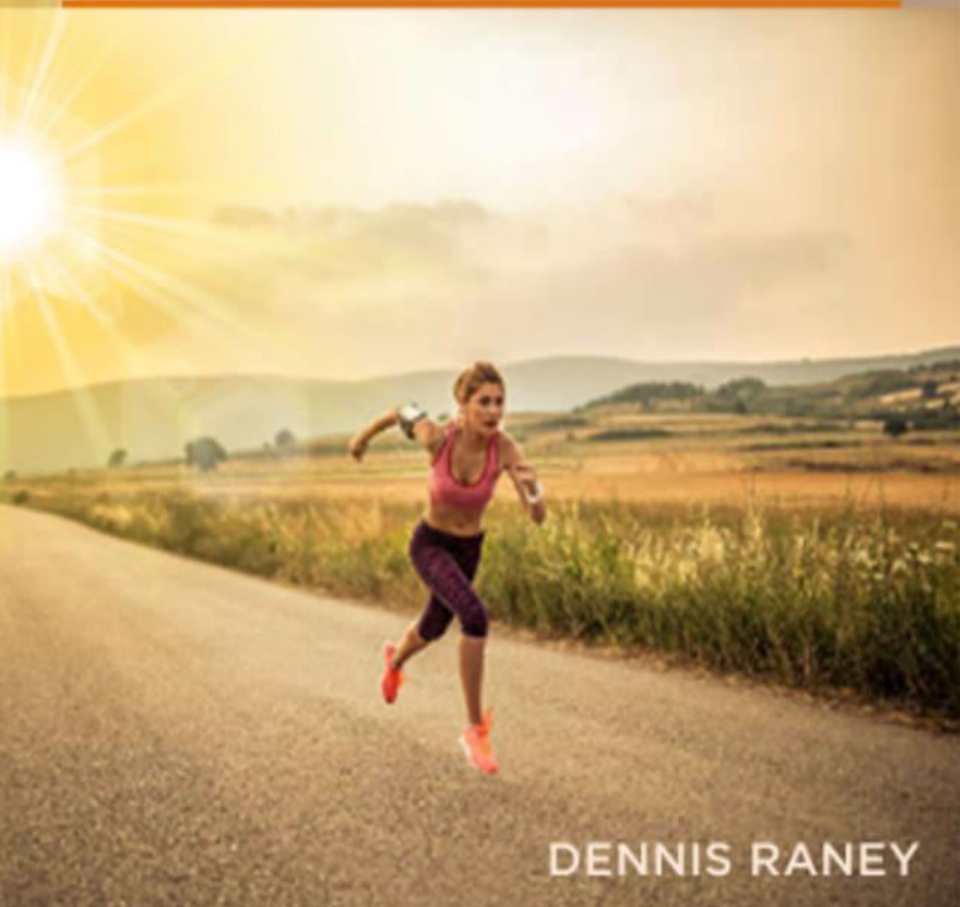
GROW TALLER AFTER PUBERTY

EXERCISE ROUTINE HAND BOOK

steps to take to grow taller after puberty
and common mistakes to avoid



DENNIS RANEY

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Revised edition.

Warning and Disclaimer

Every effort has been made to make this document relevant and as accurate as possible, though this isn't guaranteed.

In case of damage or loss of this document, the author shall have no responsibility whatsoever.

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Prologue

I first of all credit you for purchasing a copy of this routine and it is my prayers that you achieve your objective of height increase just like I did in as short a time as possible.

If you've been working out for some time with the aim of adding a couple of inches to your vertical stature but not achieving tangible results as expected, you should know by now how tough it is to work out without knowing if you are on the right path and then not seeing any tangible results. It all leads to pessimism and giving up sooner than you should.

I've been there before, searching day in and out for Information from someone who was successful with height increase after puberty only to be snared by scammers who base their information not on facts but theory and expectations.

If you are just planning to embark on this journey to height increase, then you are lucky to have a head start since chances are you will be guided and you will always stroll the right path until you achieve your objective.

Be positive, open minded and focused on your objective. Trust me, there will plunk no obstacle in your pursuit for height increase.

After achieving one inch then you hunt for the

second trust me you will enjoy it when results go your way and before you know, a year of exercising will be gone but you'll be up to three inches taller. If you can, dedicate a couple of months to a year to height increase and clearly set out your goal say one inch in four months, you will be able to stick to the routine for long. If you fail to add say an inch in four months, then you may push it to six months. I started using this particular routine at 26yrs, and I was standing at 5'4'' yet managed to grow over 6 inches taller in three years just by sticking to the routine for long. I am currently standing just under 5'11".

PS: *This guide mainly covers the execution of the exercises and the routines in general. Some crucial*

information from the parent website was included to keep all the important information in one place. However, other not so important information may be found on the main website;

https://growtallerwithshinlengthening.com

CHAPTER 1

HORMONES THAT INFLUENCE BODY GROWTH

Growth reflects a complex interplay of hormones, environmental influences, and genetic factors. The pulsatility of growth hormone (G.H) secretion under physiological conditions is controlled by a complex regulatory system primarily exerted by their hypothalamic neuroendocrine hormones; Growth Hormone Releasing hormone (G.HRH), somatostatin (G.HIH) and *Ghrelin.*

G.H.R.H, is the principal stimulator of G.H synthesis and secretion while somatostatin is a potent non competitive inhibitor of the release of G.H and modulates the pituitary G.H response to G.HRH.

Human Growth Hormone (H.G.H)

A lot will be said about human growth hormones so what exactly is H.G.H?

Human growth hormone is produced by the pituitary gland located deep inside the brain just behind the eyes, and it stimulates the growth of muscle, cartilage, and bone.

It‘s made throughout a person's life time but is more plentiful during youth.

H.G.H instigates growth in children and plays an essential role in adult metabolism.

Scientists first isolated H.G.H in 1956. Three years later, N.H.S (National Health Service) doctors began

to use it in the treatment of children suffering from stunted growth to help them grow.

It‘s secreted in short pulses during the first hours of sleep and after exercise. Under normal conditions, more G.H produced at night than during the day. In people of all ages, G.H boosts protein production, promotes the utilization of fat, and interferes with the action of insulin, to raise the blood sugar levels. G.H also increases levels of insulin-like growth factor-1 (IGF-1).

Therapeutic use

G.H is available as a prescription drug that is administered by injection. G.H is indicated for children with G.H deficiency and others with very short stature and used to reverse muscle wasting in AIDS patients.

It ‘s also approved to treat adult G.H deficiency — an uncommon condition that almost always develops in conjunction with significant problems afflicting the hypothalamus, pituitary gland, or both. The diagnosis of adult G.H deficiency depends on individual tests that stimulate G.H production. Simple blood tests are useless at best, misleading at worst.

H.G.H has also been promoted as an anti-aging treatment Because of the importance of the H.G.H to the body's biochemistry.

Adults with bonafide G.H deficiencies benefit from G.H injections. They enjoy protection from fractures, increased muscle mass, improved exercise capacity, and are at a reduced risk of future heart disease.

Potential side-effects

Despite its broad range of therapeutic application, there is a price to pay. Up to 30% of patients experience side effects that include fluid retention, joint and muscle pain, carpal tunnel syndrome (pressure on the nerve in the wrist causing hand pain and numbness), and high blood sugar levels. Excess H.G.H in the body can cause ***acromegaly***, (a disease where the hands become spade-like in appearance as they get bigger), Growth of the facial bones which causes the face to change shape too.

The jaw becomes larger with spaces appearing between the teeth because of this, and the eyebrows become more prominent. The tongue

enlarges and the skin becomes coarse and oily. Organs of the heart, liver, and kidneys will also undergo excessive growth, leading to potentially life-threatening problems - like *cardiomyopathy*, a disease of the heart muscle where the heart loses its ability to pump blood and in some instances, heart rhythm is disturbed leading to irregular heartbeats.

There's also an increased risk of cancers due to the abnormal growth of cells.

Growth Hormone Releasing Hormone (G.H.R.H) also known as Growth Hormone Releasing Factor ***(G.H.R.F)*** or ***somatocrinin*.**

Growth hormone-releasing hormone is a hormone produced in the hypothalamus and cleaved (split) to generate the prime factor known as somatoliberin, which acts to stimulate G.H release from the pituitary gland. In addition to its effect on growth hormone secretion, G.H.R.H also affects sleep, food intake and memory.

Insulin-like growth factor 1 (IGF-1)

Is a hormone produced in the liver and other organs in response to growth hormone and can be

retarded by under nutrition. IGF-1 is produced throughout life. The highest rates of IGF-1 occur during the pubertal growth spurt and the lowest during old age.

IGF-1 is the primary mediator of the effects of growth hormone. Once growth hormone is released into the bloodstream, it stimulates the liver to produce IGF-1. IGF-1 then stimulates systemic body growth and has growth-promoting effects on almost every cell in the body, especially skeletal muscle, cartilage, bone, liver, kidney, nerves, skin, and lungs.

In addition to the insulin-like effects, IGF-1 can also regulate cell growth and development, especially in nerve cells, as well as cellular DNA synthesis.

Protein intake increases IGF-1 levels in humans, irrespective of the total calorie consumption. A synthetic analog of IGF-1 (mecasermin) is used for the treatment of growth failure.

Somatostatin (also known as Growth Hormone Inhibiting Hormone).

Somatostatin is a hormone produced principally in the nervous and digestive systems. The primary function of somatostatin is to prevent the production of other hormones and also stop the unnatural rapid reproduction of cells — such as those that may occur in tumors.

It regulates a wide variety of physiological functions. The hypothalamus is a region of the brain that regulates secretion of hormones from the pituitary gland which is located just below it.

Somatostatin from the hypothalamus inhibits the secretion of G.H by the pituitary gland. It's also produced in the pancreas and inhibits the flow of other pancreatic hormones such as insulin and glucagon. The pancreas also secretes it in response to many factors related to food intakes, such as high blood levels of glucose and amino acids.

Finally, it acts locally in the gastrointestinal tract to reduce gastric secretion of gastrointestinal hormones, including gastrin and secretin.

Chemically altered equivalents of G.H.I.H are used as a medical therapy to control too much hormone secretion in *acromegaly* patients and other

endocrine conditions, as well as treating some gastrointestinal diseases and a variety of tumors.

Because it's an inhibitor, somatostatin is essential to balance hormone levels in the body and stop the effects of overproduction of certain hormones.

Thus, somatostatin levels that are too low can cause the problems associated with high levels of other hormones. Growth hormone, in particular, can be problematic. However, this is a rarely reported condition.

Excessive somatostatin levels may be secreted as a result of an endocrine tumor known as somatostatinoma. This tumor produces the

hormone independently. The result is extreme suppression of the hormones inhibited by somatostatin. An example of this is the suppression of insulin secretion from the pancreas leading to raised blood glucose levels (diabetes).

Since somatostatin regulates many physiological processes, too little somatostatin production may as well lead to a variety of problems, including too much secretion of growth hormone. However, there are very few reports of somatostatin deficiency.

Ghrelin

Derived from "*Ghre*" which means grow and "*relin*" which means release, ghrelin was first isolated from the rat stomach in 1999 by Kojima and colleagues.

It's a gastric peptide that increases appetite, glucose oxidation, lipogenesis (the metabolic formation of fat) and instigates the release of G.H.

Ghrelin is produced and released mainly by the stomach with small amounts released by other organs like the heart, lungs, lymphatic tissue, kidney, adrenal glands, thyroid gland, pancreas, gonads, and the brain. *Ghrrelin* is suppressed by intake of nutrients thus it's normally secreted when the stomach is empty, and its secretion ceases when the stomach is full. It acts on hypothalamic brain cells both to increase hunger, increase gastric acid secretion and gastro intestinal motility to prepare the body for food intake.

Ghrelin acts by targeting the arcuate nucleus (A collection of neurons in the hypothalamus of the brain), from where growth hormone releasing hormone neurons provoke G.H secretion.

How Age plays a role in growth hormones release by the brain

Spontaneous growth hormone secretion rates and secretory patterns were studied in a group of normal pre-pubertal children, adolescents, young adults and older adults by determining the concentration of growth hormone in plasma samples obtained at 20-minute intervals over a 24-hour period.

Pre-pubertal children secreted growth hormone only during sleep and not while awake and had a mean secretion rate of 91 µg/24 hours. ***µg*** denotes micrograms.

Adolescents secreted growth hormones both during awake and sleep periods and had a mean secretion rate of 690µg/24hours. Secretion rates in young adults (21 to 41 years) averaged 385 µg/24 hours. Growth hormone was secreted during both awake and asleep periods but the number of secretory episodes was less than in adolescents.

In older adults (42 to 62 years) the total 24-hour secretion of G.H decreased and approached zero in three out of five studies. These data clearly demonstrate an age related change in the spontaneous secretory rate and secretory pattern of growth hormone.

WAYS TO MAXIMISE GROWTH HORMONE RELEASE

1. Weight lifting

Researchers divided women into groups; one group did upper body training and the other a total body strength-training workout. Some of the participants used lighter weights and high reps (up to 12 reps before failure) while the other used heavy weights (up to 8 reps before collapse). The researchers measured the growth hormone levels of the participants before and after. The women did, indeed, have more growth hormone in their blood after the workouts and levels were higher after using heavier weights.

In another study, researchers from Japan documented a transient rise in growth hormone in 16 participants after a high-intensity interval training session. The participants pedaled an exercise bike at 85% of their V02 max (maximal oxygen consumption) for one minute with 30 seconds of rest between each set. They completed 10 sets total. So, strength training, using heavy weights, and high-intensity exercise seem to boost growth hormone short term.

2. Reducing weight if you're too fat.

Once H.G.H is released into the bloodstream, the hormone travels to the liver and stimulates the

production of insulin-like growth factor 1. Once released into the bloodstream, H.G.H also stimulates the testes into producing more testosterone. Testosterone is another highly anabolic hormone that has a direct impact on protein synthesis, muscle mass, metabolic function and sexual health.

While human growth hormone is known to boost testosterone levels, studies have also found that increased testosterone production will boost H.G.H. It appears that these hormones work in collaboration and both have positive effects on one another. A survey of 1,822 men by the New England Research Institute confirmed that a man's waist

circumference is the single most reliable predictor of low testosterone levels.

3. Sleeping 7-8 hours every day.

The most considerable secretion of Human Growth Hormone occurs at night during the first two hours from the onset of deep sleep. Slow-wave sleep is frequently associated with Growth Hormone production, though individual patterns of G.H secretion during sleep show considerable diversity.

4.Watch what and when you eat.

When you eat a meal with carbohydrates and protein, Digestion occurs over the course of several hours and insulin levels rise in response to the absorption of these macronutrients.

Carbohydrates consist of molecules of sugar, which your body digests into glucose and uses for energy. When you're short on carbs, glucose can be created from fat and protein in a process called ***gluconeogenesis***.

Gluconeogenesis takes place mostly in your liver, which also has the job of maintaining a steady amount of glucose in your blood.

Insulin is the hormone responsible for regulating the metabolism of glucose and most amino acids (exceptions are lysine and leucine) derived from the protein in your diet that is converted to glucose for fuel. The effects of insulin on G.H production were studied in rat pituitary tumor cells. Insulin inhibited growth hormone secretion after a 48 - hour lag period by approximately 50 percent. The suppression of H.G.H secretion was reversible, as removal of added insulin resulted in the return of H.G.H production to normal levels after 24 hrs.

Overeating, too often, leads to lowered growth hormone levels only because of the increase in

insulin required to convert all that blood sugar into proper glycogen stores.

What you need to eat to instigate growth hormone production

Specific amino acids, such as arginine, lysine, and ornithine, can stimulate H.G.H secretion.

Foods high in L-arginine include; Soybeans, poultry meats like turkey and chicken, pumpkin seeds, peanuts, Diary products like cheese and yogurt, and Roasted Soybeans. ***Foods high in ornithine include;*** chocolate, Coconut, Dairy products, Gelatin, Meats, Oats, Peanuts, Soybeans, Walnuts, wheat and wheat germ.

Foods high in Lysine; Eggs, Pulses (White Beans), Seeds & Nuts, Seafood (Shrimp, cooked), Fish, Soybeans, Pork, Turkey, and Chicken.

5. Consider Intermittent Fasting

As discussed earlier, when you go 16 to 24 hours without food, a hormone called ghrelin is released in the body. The stomach predominantly produces ghrelin a 28 amino acid, octanoylated peptide, and food intake primarily regulates its levels. Ghrelin, as the ligand for the growth hormone secretagogue receptor, potently stimulates secretion of growth hormone. *Intermittent Fasting* is restricting your food or calorie intake for a specific period during a

given day usually 16 to 24 hours but can be extended if you wish. You may take water or sugar and calorie-free beverage during this time.

By this time you may have had your supper. You will have to skip breakfast then break your fast at about 12 to 1 Pm the next day which will be lunch time. You may do this three times a week or even more. However, if you choose to go 24 hours without food, then once or twice a week will be sufficient. Visit *leangains.com* for more information about intermittent fasting.

6.High intensity interval training/ Exercising.

High intensity interval training/ exercising (H.I.I.T/E) implies alternates between intense bursts of activity and fixed periods of less-intense activity or even complete rest. For example; sprinting as fast as you can for one minute and then relaxing for two minutes.

A study from *Dept.* of Physical Education, Loughborough University, UK: 2002 was comparing 30 second all-out sprints to 6 second all-out sprints. The participants did just one set of this all out-sprint and then H.G.H levels were monitored closely for 4 hours after the single sprint. Here are some highlights…

"Metabolic responses were greater after the 30 s sprint than after the 6 s sprint. The highest measured mean serum H.G.H concentrations *after the 30 s sprint were more than 450% greater than after the 6 s sprint."*

"Serum H.G.H also remained elevated for 90-120 min after the 30 s sprint compared with approximately 60 min after the 6 s sprint."

CHAPTER 2

FOODS TO EAT TO MAXIMIZE BODY GROWTH POTENTIAL

Puberty occurs earlier in individuals who are well nourished throughout childhood and for those who have not experienced significant illnesses.

You need to consume a healthy diet that is high in fruits and vegetables, and rich in nutrients like protein, zinc, calcium, and iron.

Milk

Milk consumption is associated growth in height. A recent study, published in the American Journal of Clinical Nutrition, found that each daily cup of non cow's milk consumed was associated with 0.4 centimeters (0.15 inches) lower height than average for a child's age. Milk contains calories, protein, and calcium, among other nutrients, and bioactive components such as insulin-like growth factor-1 (IGF-1), all of which may facilitate bone growth.

Some people question whether your body can digest IGF-1 through the intestinal tract. However, animal data suggest IGF-1 is indeed absorbed through the intestines and is biologically active. IGF-

1 is a hormone that promotes cell division and growth. However, its levels decline with age. While IGF-1 is necessary for growth in children and teens, it may not be good to have higher levels as you age. Clinical data indicates that in adults, more elevated IGF-1 levels are linked to an increased risk for cancer. According to the Physician's Committee Responsible for Medicine, taking milk with lower IGF-1 will be less risky. Either get milk from farmers that do not treat their cows with ***rBG.H*** (Recombinant bovine growth hormone) or Check the product for a label that says "rBG.H free" or "rBST free." RBG.H is a synthetic hormone commonly injected into cows in the commercial dairy industry to increase milk production. RBG.H

has sparked controversy and questions regarding the safety of drinking milk from cows treated with this hormone. Cows treated with this hormone tend to contain higher levels of IGF1. Foods labeled certified organic are always rBG.H-free.

Another study on American children found that adult height was positively associated with milk consumption at ages 5-12 years and 13-17 years.

Other animal protein foods

Some protein sources, such as animal products, contain all of the essential amino acids. Meat, poultry, fish, eggs, and dairy are all considered complete proteins. If you consume two to three

servings of these foods a day, you will meet your daily protein needs.

According to *Donald K Layman of The American Journal of Clinical nutrition*, various protein sources may exhibit different effects on bone metabolism. Some, but not all, studies have found that animal meat (including poultry and fish) as a protein source is associated with higher serum levels of IGF-1, which is in turn associated with increased bone mineralization and fewer fractures. Soy foods have been linked to lower levels of IGF-1.
A 3-year clinical study of 342 healthy men and women 65 years of age and older also found that those who consumed the most protein and were

supplemented with calcium experienced the most significant improvement in bone mass density, and most of the protein consumed was animal protein. Low protein intake impairs both the production and action of IGF-1 (Insulin-like growth factor-1).

IGF-1 is an essential factor for longitudinal bone growth, as it stimulates proliferation and differentiation of chondrocytes in the epiphyseal plate, and also for bone formation. It can be considered as a key factor in the adjustments of calcium-phosphate metabolism required for healthy skeletal development and bone mineralization during growth.

If you're vegetarian or if you do not want to eat animal meats, Quinoa a plant-based seed that is often called a grain is also a complete protein and a healthy option.

Besides quinoa and soy, proteins from plant-based foods are typically considered incomplete proteins because they only contain some of the essential amino acids. Beans and legumes, nuts and seeds, grains, vegetables, and fruits are all incomplete proteins. Combining two incomplete protein food choices in order to get all of the essential amino acids may help. For instance, brown rice and beans will make a complete protein meal.

You may consider fruits like; Avocados, Guavas, Blackberries, Bananas, Jackfruit, Apricots, and

Kumquats. ***And vegetables like;*** Sprouted Beans including soy, Peas & Lentils, Lima Beans, Green peas, Cooked Succotash, Kale, Broccoli, white cooked mushrooms, and Cauliflower.

Vitamins Necessary for Body Growth

Vitamin A

Vitamin A is essential when it comes to bone formation. Vitamin A is necessary for proper growth and development of our bodies to occur. It directly aids in growth by improving cell division and differentiation of many different types of cells. The National Institute of Arthritis, musculoskeletal and skin diseases vindicates that vitamin A is essential in

regulating the processes that keep our bones growing healthy.

Vitamin A is found in most animal livers, fish like salmon and tuna, hard boiled eggs, and vegetables like carrots, kale, and cooked sweet potatoes. Fruits rich in vitamin A include mangoes, passion fruits, cantaloupe, guavas, papaya, and watermelon.

Vitamin D

Vitamin D is essential for the absorption and use of calcium and phosphorus by the body. It's necessary for the formation and health of bones, teeth, and cartilage. Peak bone mass is usually achieved by 30 years. Therefore, physical activity and obtaining the

recommended doses of calcium and vitamin D in adolescence and young adulthood will ensure peak bone mass.

There are two forms of vitamin D; - D2 is found in some foods and D3 is produced within the body when the skin is exposed to sunlight. 10 to 15 minutes of sunshine, three times a week is enough to build the body's requirement of vitamin D.

Dietary vitamin D2 is found naturally in egg yolk, tinned fish, cod and halibut liver oils. Vitamin D is also added to some foods. In the UK, margarine has to be fortified with vitamin D by law. In the United States, milk is fortified with vitamin D.

Vitamin K

This is an essential component in the body's normal blood-clotting process and plays an indispensable role in maintaining bone health. Most vitamin K is produced by micro-organisms in the intestine and is stored in the liver.

Dietary vitamin K is obtained from green leafy vegetables such as spinach, Brussels sprouts, broccoli and cabbage, and some vegetable oils including soybean and rapeseed.

Minerals that facilitate growth

Calcium; Calcium is essential when it comes to bone architecture and is required for deposition of bone mineral throughout life. 99% of the calcium in the body is stored in bones and teeth. ***Sources include;*** Dairy products, such as milk, cheese, and yogurt.

Zinc

Zinc is a micro-mineral needed in the diet on a daily basis, but only in minimal amounts (50 milligrams or less). When the effect of zinc supplementation on growth velocity was assessed, it was established that zinc supplementation increases growth velocity over a 12-month period.

Zinc plays a role when it comes to hormonal mediation by participating in:

a) Growth Hormone synthesis and secretion. b) The action of Growth Hormone in the liver.

c) Somatomedin-C production. Somatomedin

-C is another name for insulin-like growth factor 1 (IGF-1).

d) somatomedin-C activation in bone cartilage. In addition to these multiple functions, zinc also interacts with other hormones somehow related to bone growth such as testosterone, thyroid hormones, and insulin.

Zinc may be found in food sources like; pumpkin seeds, beef, chicken, Cashews and ***Fruits like;*** Apricots,

Peaches, Avocados, Prunes, blackberries, bananas, Raspberries, Figs, and Dates. ***Vegetables include;*** spinach, Palm Hearts, lemon Grass, cabbage, green Peas and mushrooms.

CHAPTER 3

EFFECTIVE EXERCISES FOR BODY GROWTH AFTER PUBERTY

Adding height to the torso (The stretches)

Studies that evaluated the biochemical effect body stretches or stretching exercises showed that muscle length does increase during stretch application due to the viscoelastic properties of muscle. Viscoelastic materials have elements of both viscous and elastic characteristics. Viscous materials resist flow and strain linearly with time when a stress is applied. A good example is honey.

Three muscle stretching techniques are frequently described in literature; *static*, *dynamic*, and *Pre-Contraction*.

The most common type of stretching is static stretching, where a specific position is held with the muscle on tension for a specified period to the point of a stretching sensation and then repeated. Static stretching focuses on increasing the length of a musculotendinous (muscular and tendinous) unit, thereby increasing the distance between a muscle's origin and insertion.

However, this length increase is transient, its magnitude and duration are dependent upon the period and type of stretching applied hence the

length of muscle declines within 15 minutes. Also to note is that when stretching is applied to a muscle and the muscle is held in the extended position for a period, as is the case with standard static stretching techniques, the muscle's resistance to stretch gradually declines.

On the other hand, the vertebral column (back bones) usually consists of 24 articulating vertebrae separated by intervertebral discs which lay between adjacent vertebrae in the spine. This makes it possible for anyone to add at least 1-3 inches to the entire torso with static stretches.

Most individuals are at least 1-3 inches shorter than their maximum potential height. Published

literature indicates that the straight adult spine loses up to 20 mm (slightly more than 3/4 inch) of vertical height each day due to loss of fluid from the disc, wrong posture and carrying heavy objects especially backpacks on our backs.

Sleeping allows the discs to regain most, but not all, of their fluid and height by reabsorption of the fluid surrounding the discs. Hence it's not guaranteed that all the height lost during the day will be regained during sleep. Here is where the Stretches and devices like the spine stretching, or decompression device will play a significant role when it comes to increasing your height. We will talk more on that later.

A disc made from cartilage has a typical thickness, (depending on which section of the back) of around 9 millimeters. There are 22 notable discs in the back of reasonable thickness. These discs are made of cartilage material and adding just a few millimeters of thickness to each disc will add typically around 3 - 5 inches of aggregate height.

This may be achieved through taking glucosamine supplements for example which are used to treat Osteoarthritis a condition where cartilage wears out especially among the old. ***Glucosamine***, which is produced naturally in the body, plays a significant role in building cartilage the tough connective tissue that cushions the joints.. Glucosamine is often taken

with ***chondroitin***, another supplement thought to be effective in treating osteoarthritis.

Ensuring that you've enough vitamin C in your body is another measure you need to take. The long-term inadequacy of vitamin C causes weak spinal disks. Without enough vitamin C, the body is unable to make collagen, the protein glue that holds cells together. When the cells of cartilage Intervertebral disk aren't sticking together, the disc will degenerate, rupture, herniate, or "slip." There is a lot of body weight on the bones of your lower back. When you flex and move, and the disks are weak or worn down, the bones can compress nerves emerging from the sides. Inadequate vitamin C also

causes the cushioning cartilage in your joints to deteriorate, roughen, and increasingly wear thinner. As the cartilage degenerates, bone scrapes on the bare bone with each movement. As discussed earlier, that is osteoarthritis.

Thirdly, ensure that you keep your body hydrated. According to *Dr. Mercola* (mercola.com), the discs are comprised of 88 percent water. Proper hydration is essential for nourishment, lubrication, and function of all joint cartilages, tendons, ligaments and spinal discs' nutrition delivery as well as waste elimination. When the body dehydrates, it pulls water out of the "white tissues" first, meaning the ligaments and tendons of the body (vertebral

discs). If the body continues to dehydrate, the body system pulls water next out of the organs, eventually the brain and then you will die.

A loss of only 12 percent of the water from the disc will reduce the disc height by 50 percent.

The stretches will not make cartilage or backbones grow. Instead, stretching lengthens the muscles around the back, decompresses the spine and ensures that there's room for cartilage and or bone growth.

Sprints, jogging and walking

These leg exercises will contribute to your efforts of height increase in three ways.

First, Sprints are an example of High-Intensity Intermittent Exercises (H.I.I.E), so sprinting can spark G.H release in the body. A study published in the journal Sports Medicine found that exercise intensity above *lactate threshold* and for a minimum of 10 minutes appears to elicit the most significant stimulus to the secretion of HG.H. More on *lactate threshold* will be discussed under chaos training. Fitness expert *Phil Campbell* further expounds on this important topic in his book *"Ready, Set, Go."*

Sprints, jogging, and walking may also create micro fractures in leg bones.

MICROFRACTURES are incredibly tiny fractures or gaps that exist in the legs following a vigorous high-impact exercise such as sprinting or running. Bones are designed to heal very rapidly in cases of fractures.

Just like in leg-lengthening operations where a massive fracture is created by cutting the bone into two and separated allowing them to heal to a new length.

it's believed that if a pulling force is applied immediately after the above mentioned exercises

mainly jogging, by the time the fractures heal the leg bone will have lengthened though very slightly.

An inversion table or ankle weights may be used to pull the fractures.

Thirdly, the entire body weight rests on our leg bones. Jogging and walking may lead to an increase in bone mass since the bones will have to grow thicker to accommodate the stress applied to the legs. Exercises like jumping rope, and swimming may also help.

Ankle weights.

This technique attempts to mimic the leg lengthening procedure as discussed earlier. You may apply the weights immediately after jogging before the micro fractures heal in not more than 10 - 15 minutes. More on the ankle weights routine and Jeff's success story will be discussed later.

The challenge with this method is you need to keep the weights on for hours and you're not supposed to walk immediately after applying them. Thus if possible, apply the weights everyday an hour or two before going to sleep at night. Don't sleep with the weights on.

First, you'll feel numbness every 10 or so minutes, and you'll need to massage your feet to ease the numbness. Second, you need at least 7- 8 hours of quality sleep every day since G.H is released during deep sleep hence waking up every couple of minutes to massage the feet will deprive you of the quality sleep.

Cycling with raised seat

This is one method I highly endorse simply because I successfully used this method to grow my shinbones by over 2.5 inches over a period of 3 years. Some fail with this technique but to increase your chances of success, first, you need to do whatever it takes to increase G.H in the body, and enough has already been discussed about how to achieve this. That's one crucial factor many either disregard, don't know or miss out. Others use protein powders as you will see under success stories but I never used supplements, so I have no comment. What's essential is bearing in mind the most critical nutrients for bone growth.

This is under foods for body growth. If you always mind what you eat and focus on only what's essential for body growth, there will be no need for supplements save for the nutrients that are poorly absorbed by the body. A lot more will be discussed about this exercise later.

Chaos training.

This was the turning point when it came to my quest for height increase. Before introducing chaos training to my exercise routine, I was only relying on sprints for G.H, and after more than a year of exercising, I had managed to add 2- 3 inches of temporary height in the torso and about half an inch in legs. Before I forget to mention, I started these exercises for height increase at 26 years and I was standing at 5'4". So, before chaos training, permanent height was 5'6.5". One inch was temporary. With a much longer torso compared to legs, my body was definitely out of proportion, so I was desperate to do something about the length of my legs. Many folks are concerned about growth

plate's closure, and I was too, but at the same time, I was too desperate to give up especially after adding a few inches and being up beat that I could get more. Hence I decided to continue with my search for information then I came across *Adam Rainer* and *Väinö Myllyrinne* stories. These are some of the examples of individuals who experienced growth spurts throughout life even in their thirties because they were suffering from ***Acromegaly***. A*cromegaly* patients who are adults experience growth in feet fingers and skulls but these individuals experienced growth in all parts of their bodies until they died. This yanked my attention and based on the knowledge I had regarding increasing growth hormones naturally in the body,

on top of sprints which I was already doing, I added two techniques, both of which instigate growth hormone release. One was weight lifting and the other was High Intensity Intermittent Exercising and this is what I call chaos training. More on how I used chaos training later. I didn't use fasting because I had quite a busy work schedule so eating was a must. (Don't worry about acromegaly here unless of course you've a brain tumor. If too much G.H than is needed is released by the body, *Somatostatin* will come into play. We already discussed this hormone.)

Two to three weeks into chaos training, I started experiencing changes in my body structure. First,

my feet grew in length then I noticed my legs and feet became veiny. At this point I didn't know what to expect. About a month or so later, I realized my fingers were a little longer. I always had a little scar on my arm towards the elbow since my childhood years, but now it had moved upwards. Then I took a closer look at my hands. They were slightly longer. But this isn't what I was in for. I wanted longer legs so during all this time I continued with the cycling exercise hoping and praying. But I hadn't noticed any significant increase in my shin bones.

Every once in a couple of days, I always felt spontaneous, piddling pains in my shin bones during my first month or two of cycling and sprinting before adding about a quarter of an inch in legs. But

now the pains started becoming more regular. One morning when I was dressing up for work, the first pair of trousers I tried on wasn't fitting. It was about a centimeter from the bottom of my feet. "What else could make the inseam shorter besides weight gain and leg length?" I wondered. Excitedly I tried another pair of trousers confident that this was the moment I was waiting for. It didn't fit as well. It was an exuberant experience. Before even measuring my height, this was the first proof that I had significantly grown in legs.

Not that I hadn't increased my height since I started exercising, but people will hardly notice that you're taller if your legs haven't significantly grown. No one was telling me directly but I could hear voices in

the background. People discussed my height because it was such a surprise considering my age. Thus all of the sudden i secretly became a topic of discussion at work and among family members. I was beginning to tower over some of the hitherto taller workmates. And I kept my little secret to myself.

CHAPTER 4

THE ROUTINE

Now that you have an insight on what it takes to increase height after puberty, it's time to share with you the exercise routine I successfully used plus the mistakes to avoid.

How age will influence your results.

12- 18 boys and Girls.

If you're 18 years and under for most boys and girls, I don't advise you to use the routine as it is. Reason being that it involves chaos training to increase

growth hormones. Chaos training includes weightlifting.

Excessive physical activity during childhood and adolescence may negatively affect body growth and adolescent development. Excessive exercise is associated with delayed pubertal changes. Sports that emphasize strict weight control in the setting of high-energy output are of particular concern. Studies of male scholastic wrestlers have shown decreased linear growth during the sports season with catch-up growth during the post season. Studies of elite female gymnasts and dancers have likewise demonstrated delayed growth and pubertal maturation during periods of intense training.

If you're still in puberty, your body is naturally undergoing the process of growth. Your body has the natural ability to release enough growth hormones to instigate growth. You may however still utilize some of the exercises in this guide like cycling, ankle weights and the stretches

So what should you do If you belong to this age group?

If you are in this age group, just center your efforts on other factors that facilitate body growth and human growth hormone production. Some of these factors will be discussed further in the proceeding chapters.

They include but are not limited to;

1. Get involved in exercises or Sports that put stress on your legs.

Exercises, that require running, jumping or kicking out. Such sports may include football, basketball, volleyball, handball and alike. According to *Los Alamos laboratory research*, human bones are organs continually remodeling through a processes that removes existing bone and deposit new bone. A young adult's skeleton replaces one-fifth of its bone tissue each year. This dynamic remodeling serves both to subtly adjust structure in response to changing stresses and to maintain the proper level

of blood calcium, a mineral essential to the functioning of all cells.

Remodeling occurs typically during bone growth, in response to physicochemical factors such as stresses from exercise, during repair of injuries such as fractures, and during hormonal changes. Remodeling includes the sensing of environmental changes, the formation of new bone, and the removal of existing bone ("resorption").

2. Avoid early sex not masturbation.

I receive a couple of emails from adolescent boys wondering if masturbation is responsible for their stunted growth. According to research carried out

by John Morris a doctoral student in psychology and his team on 40-day old hamsters; which they say are equal to old teenagers in human terms, early sex can affect the immune system and delay the onset of puberty and growth, as well as having 'lasting effects on the body and mood' which continue into adulthood.

This is because the teen body interprets sex as a "*stressor*," sending the immune system into overdrive and causing inflammations that are behind conditions such as IBS (Irritable Bowel Syndrome) which can delay the onset of puberty and affect growth because sufferers miss out on crucial nutrients.

3. Increase growth hormones in the body Already discussed how. But keep away from chaos training if you belong to this age group.

4. Improve your nutrition.

Read the chapter about food meticulously.

5. G. H Supplements (Arginine and Lysine)

Consider visiting an endocrinologist. That's what the Argentine endocrinologist Diego Schwarzstein did for the now famous footballer *Lionel Messi* in 1998 when diagnosed with a partial growth hormone

deficiency. As discussed earlier, Specific amino acids, such as L-arginine and L-lysine can stimulate human growth hormone (H.G.H) production. First, don't take these supplements every day. Your body will become growth hormone tolerant. Take them 2-3 times a week with one or two day's gap. It is also essential to take arginine & lysine on an empty stomach because Food may decrease the absorption of supplements and may interfere with the HG.H levels. So, don't take them with food. At least take them 3 hours after dinner.

Age 19 - 27years

Most success declarations come from this age group so if you belong to this age group; you have higher chances of growing after puberty.

27 years and above

If you belong to this age group, you may face a number of challenges that may prevent or impede your success. Since I started at 26, I encountered some of these challenges but don't despair; there's still hope. I say this because I once received an email from a 37-year-old who claimed he added 3cm in legs with ankle weights, but he never reverted when I asked what exactly he did. He only

shared pictures; then another email from a 38-year-old who added 2.5 inches in torso between 38 and 40years.

Since for most people this is the busiest time of their life, the primary challenge faced by folks 27 years and over has to do with inconsistency. If you don't have the time to focus on the routine, you'll have limited chances to make it. I quit my day job to focus on the routine just because I realized that during my leave I grew more rapidly. Then after quitting my job, I started growing consistently. I don't advise you to do the same, but just sharing my personal experience.

The Athletes

The other category that faces challenges with the routine is athletes. Most athletes have regular training sessions so incorporating the grow taller routine with the training routine becomes a big challenge. First, to be successful with the routine, you need plenty of rest. If you're an athlete and you train twice or three times a week, then I suggest you do all the chaos training exercises on the same day. The stretches, cycling and ankle weights may be done any day regardless of training routine.

What is needed?

This routine will mainly focus on upper body and lower body that is; the most effective torso lengthening stretches including the neck and chest stretches.

For the lower body, emphasis is on lengthening the shin bones with the cycling technique.

Other techniques like the inversion table and ankle weights will be briefly covered towards the end of the book. If your budget is tight, this routine can be performed in the comfort of your home besides sprints which will require a pitch or clearing of approximately half a football pitch.

Otherwise, the following equipment may be needed;

1. An indoor cycling bike.

2. Alternatively, use an outdoor bicycle like a hybrid bike.

3. A bicycle stand to make the outdoor bike stationary.

4. Hanging stand

5. Dumbbells

6. Inversion table

7. Ankle Weights

8. Spine Stretching Therapeutic Device

Exercises that will be performed in this routine in detail

First, there is potential to grow in four areas of your body and all these areas have specific exercises that target them.

These areas include;

1. The neck
2. The chest
3. The Abdominal area or back bone
4. The shin bones

1. *The neck*

Stand still or erect with your head straight.

Then Stretch your neck towards the left by tilting your head over to the left shoulder for 5 to 10

seconds and do the same by stretching your neck towards the right shoulder for 5 to 10 seconds.

Next, fall your head to the back and be able to look at the ceiling for 5 to 10 seconds and do the same with your head facing the floor.

After the entire workout, roll your head around. Repeat the entire work out 2-3 times, and you may do it throughout the day any time you feel your neck is tense. If done correctly every day, you should see results after about a week.

2. The chest stretch.

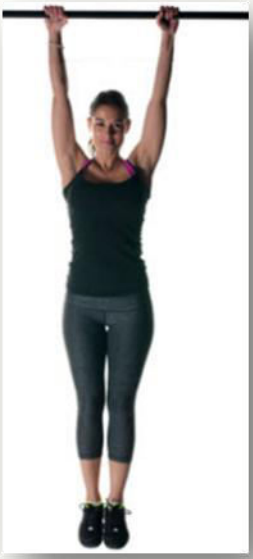
Perform this exercise by firmly holding the position as indicated in the picture for at least 10 seconds and perform this exercise any time you remember to.

he Abdominal area or trunk.

Four stretching exercises, a back stretching device and two abdominal workouts are very effective.

A. The Stretches

Hanging



Hang to the count of 15 - 20 seconds.

In the beginning, you may struggle to make 20 seconds but with time it will be much easier, and you will be able to hang on to even 30 seconds or even longer. The primary challenge with this exercise is

finding where to hang. Any bar or tree branch as long as it's high enough to keep your feet off the ground or floor when hanging will do. Repeat the exercise 1-3 times.

And perform this exercise at least once every day if Possible.

Dry swimming

Lie prone to the floor, then Raise your left hand diagonally off the ground in sync with your right leg as illustrated above and hold a position for 5 to 10 seconds. Relax for a couple of seconds before switching to the left leg and right hand.

Do 1 to 3 repetitions before relaxing the back bone by performing the cat stretch**.**

Cat stretch

Get on all fours with your arms locked out.

Inhale as you flex your spine down and bring your head up. Exhale as you bring your spine up into an arched position while bringing your head down. Hold positions for 5 - 10 seconds.

Cobra Stretch

Be prone to the floor with your hands positioned directly under your shoulders and fingers facing forward. Legs should be straight and toes pointed.

Upward Phase: Gently inhale. Engage your abdominal/core muscles to support the spine. Press

your hips into the mat or floor. Lengthen the torso and curl your chest away from the ground while keeping your hips stable. Keep the shoulders rolling down and back. Hold this position for 15 - 30 seconds. *Downward Phase:* Gently lower your upper body back to the mat or floor, lengthening the spine as you descend.

Back arcing or spine stretching device.

These come in different shapes, types and sizes but they are relatively cheap ranging from $15. If you can't secure one though, you may improvise by

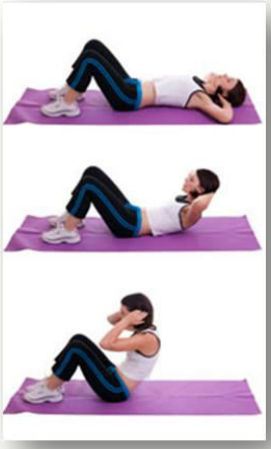
creating your own hard cushion and lie supine to it. This is very important especially in advanced stage when the muscles are fully stretched, and the body is accustomed to all the stretches. That is; at the time when you don't feel the stretching impact any more. This technique decompresses your spine and helps to improve your posture. Arc your spine for 1-2 minutes once every day any time you feel like before moving out.

B. Abdominal / core Exercises

Two abdominal workouts were effective during the routine.

Sit ups

Begin by lying supine to the floor, with the arms across the chest or behind the head and knees bent and then elevate both the upper and lower vertebrae from the floor until the entire upper body is not touching the ground. Do 5 to 10 reps in the beginning then do as many as you can when you get used.



Push ups

4. Shin Bones

There are many exercises that will lengthen shin bones but I will focus on the three that I used to lengthen my shin bones by over 2.5 inches. The inversion table, jogging and ankle weights will be discussed later.

The exercises I used include;

a. Cycling with raised saddle
b. Sprinting
c. Chaos training.

A. Cycling with raised saddle.

If you are starting out, raise the seat by quarter an inch then when you achieve the quarter gain in height, you may take it to half an inch and it may take you about four months to gain one inch in legs. On average, bones take 2 to 4 months to fully re-model. When you start growing, maintain the half inch increase and you will continue adjusting as you grow. Focus on the way the leg stretches. Don't sprint cycle or pedal very fast, rather cycle casually making sure that the leg fully stretches out by attempting to reach the pedals with the instep or the arch of your foot.

You may get bored while performing this exercise so playing some music while subconsciously focusing on the way the legs stretch may help. 2 - 5 minutes of cycling for longer legs every morning was enough to wear my legs out so I just did that every day though when starting out, 10 minutes or more a day will be ideal until the legs get used and you become fit as well.

The other important factor is the type of bike to use. I suggest opting for a bike that will challenge you to mount if you go for an outdoor bike. An example is the *Schwinn Hybrid Bike*. But the bike will have to be stationary so if you already have an outdoor bike, then just purchase a bike stand to

make it stationed. If you choose an indoor bike, opt for a bike with adjustable resistance levels. For instance, the Sunny Health & Fitness SF-B1110 Indoor bike. One of the challenges with most indoor bikes, is they come with short seat posts or stems making it impossible to adjust the stems. The same may apply to some outdoor bikes. You may hire a welder to elongate your post or purchase an adjustable seat post. When it comes to the resistance to use, let it just be moderate. Not too high and not too low. Just aim to mimic someone pedaling on level ground. I suggest Medium resistance levels or levels around 10.

Raise the seat post by a quarter an inch when

starting out then keep raising by another quarter once you get used to the initial increment.

One sure fact is, at first it will seem impossible to cycle with the raised seat because you may feel like your bottom is getting ripped apart and it'll be quite sore. You will be tempted to quit during the first week or so, but I urge you to hang on. After a week or two, you won't feel the pain anymore, and you'll be used.

PS: *Success stories with this technique using different cycling routines will be covered under the routines*.

B. Sprinting.

Perform this exercise by covering a distance of 4 to 6 yards. 1- 3 sessions depending on your fitness levels. A session, in this case, is sprinting 4-6 yards four times. At the time I started the exercises, I wasn't fit at all, so one session was enough in my case. *(That is; sprint 4-6 yards going, and4-6 yards coming back at a top speed. That is two times.)* I did one session, but if you need more G.H in the body or if you feel fit enough and you have the time then you may take a break for 5 or so minutes and do the second session. If you have a problem determining the number of yards, then just sprint at top speed going until you feel too exhausted to carry on and do the same coming back and repeat.

Do these sprints nonstop four times for about 30 seconds to 1 minute to raise the anaerobic (lactate) threshold. The entire session doesn't last more than 2 minutes. ***Note:*** That's exactly what I did partly because it was enough to wear me out and I didn't have plenty of time for the exercises. Research, however, shows that just like other H.I.I exercises, such exercises should be done in no less than 10 minutes to maximize G.H release by the body.

C. *Chaos training (High-Intensity Intermittent Training or Exercises)*

As explained earlier, short bursts of high-intensity (or max-intensity) exercises, should be followed by a brief low-intensity activity, repeatedly, until too exhausted to continue typically within 30 minutes. This may include a set of 3- 5 strength training exercises performed intermittently with the aim of exhausting the muscles quickly so that enough growth hormone is released. Weight lifting exercises are part of the set of exercises simply because weight lifting is one of the exercises that can trigger growth hormone release. So lifting weights intermittently will double the potential to

trigger G.H release since H.I.I.T/E autonomously spark G.H release.

I will explain this briefly;

When muscle tissue contracts intensely for an extended period, the blood circulation system starts to lose ground in the circulation of fresh air necessary for energy release. In these circumstances, the breakdown of sugar is *changed to lactic acid. As the lactate is created in the muscle tissue, it oozes out into the bloodstream and is distributed around our*

bodies. If this situation continues, our body performance reduces, and the muscle tissue wears

out very quickly. This point is often calculated as the ***lactate limit threshold.*** The point when the muscle is fatigued to the point of almost failing to move voluntarily.

As explained earlier, ***an increase in blood lactic acid levels is a significant trigger of human growth hormone (H.G.H) release.***

Four exercises I included in this set of exercises that is;

Sprinting

Sprints are a form of H.I.I.T, but Weight lifting releases more G.H. They are part of the chaos training set of exercises to involve as many muscle groups as possible which renders chaos training

more complete.

Followed by push-ups

Then two Weight lifting exercises which are;

Shoulder fly

Stand with hands holding down weights. Make sure you use lifts you can afford, depending on your level of strength but they should feel just heavy enough for your hands.

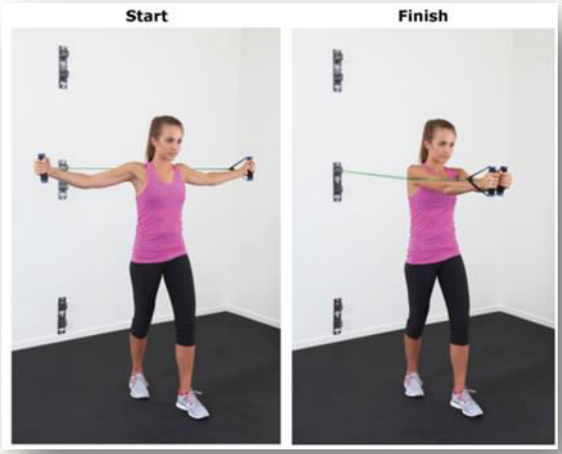
2-5 kgs will do for most people.

Then move the hands upwards gently while fully stretched out and when you reach the shoulder level, gently lower them.

Do up to 5 to 10 repetitions depending on your level of strength or simply do repetitions to the point where you can't push it any further then switch to the next work out.

For starters 1 to 2kgs may be enough then you may adjust as you progress. Use slightly lighter weights for your weaker hand.

Chest Fly



Stretch the hands out gently and in until the two hands meet. Do five to ten repetitions. The

pectorals and triceps, as well as forearms, will be worked out with this exercise.

More on when to do chaos training and how will be discussed later under the routine.

SYNOPSIS OF MY SUCCESSFUL ROUTINE IN DETAIL

During the first 1 to 3 Months

(Beginner's stage)

It's during the first month that intensity may be of benefit, but this intensity will only apply to stretching exercises. You will need to intensely stretch, to become fit as quick as Possible.

If you are targeting torso lengthening;

At the time I started I was working part time so I had plenty of time for the workouts. The more free time you have the better and faster you may see results.

Every day in the morning when you wake up,
Do the hanging exercise. Hang for at least twenty seconds 2 to 3 repetitions.

Then do the cobra stretch with 2 to 3 repetitions, then dry swim two to three times.

Finally, cat stretch once. Repeat if you wish

since this isn't as strenuous as other stretches.

Immediately after the stretches, do abdominal workouts. I suggest 5-10 sit-ups or even more if you wish. Sit-ups may be done once a day. These strengthen your core muscles and help to stabilize any gains you may achieve in the torso.

Then do the chest and neck stretches. These can be done anywhere, anytime even when you are walking. During the day, if you have time.
Repeat the series of the stretching exercises during the day, and do the same at night before bed. Otherwise, twice a day morning and night is enough.

Later in the evening, go for the sprint session. Every day, continue the entire stretching routine morning and evening.

Please remember that stretching alone will not make you taller.

You will require growth hormones to facilitate any form of growth. Let it be muscles, cartilage or bones. That's why you will need the sprints during the first one to three months.

From the day you do the first sprint session, skip two days before the second session.

If your first sprint session is on Monday, skip 2 days

before the second on Thursday, and the third on Sunday and that will be three times of sprinting a week. However, if you begin on Tuesday, then you may sprint twice a week if you maintain the two-day gap between sprint sessions.

That means if you are just beginning, you will be sprinting 2-3 times a week but no chaos training particularly weight lifting at this stage.

Endeavour to perform the sprinting exercise on a hard surface rather than a treadmill for optimal results.

In the beginning, you will need to perform torso stretching exercises every day, and your torso may

keep growing. Initially, it will be slow progress but as time passes by with better nutrition and more growth hormones released in the body, the torso will grow more rapidly.

Don't fret, if these workouts are a bit strenuous in the beginning. You may consider giving up, but the strain will be due to lack of fitness thus your muscles won't stretch without you feeling some strain. After a couple of days of stretching, your muscles will loosen, you will feel comfortable, and everything will be child's play. There are so many stretching exercises that target the backbone, but it will be better to concentrate a few that you can perform every day for the first month for an

efficient stretching routine.

Though when starting out you will feel the urge to try out every exercise you come across, that's fine. Our bodies are different thus you may come across more effective stretches for your body than the above-listed exercises.

Otherwise, if you fail to grow, then try to focus on the above-recommended exercises to see if there will be a positive effect.

However, after one to three months, the strain felt while performing these exercises will reduce and if this is the case then eliminate all other exercises and perform only dry swimming , cat stretch and sit-

ups.

This will also be the perfect time to introduce the back stretching device discussed earlier. Once you've gotten used to the stretches, use this method once every day for 1 to 2 minutes before stepping out. It'll be very critical in stabilizing your gains. This device together with the sit-ups shouldn't be missed out once you gain some height in the torso. After one to three months, you may be seeing a slight difference in your torso height unless something wasn't done right.

Otherwise, some report positive results after as early as two weeks.

How to know that you are on the right track with torso lengthening after following the routine strictly;

First, your upper body will begin to loosen and look frail because the hitherto compact muscles are now stretched. Your neck will also slacken and become weaker. This shouldn't bother you, since over time, these muscles will regroup with the aid of a high protein diet and be compact with a new length, and this is one of the ways stretching adds a couple of inches to your stature.

You will also realize that the hitherto fitting tops (shirt or blouse) will not be fitting you anymore and you will need to keep purchasing new attire more

often because your upper body will be blossoming.

Shin Bone lengthening if you are starting out.

Since I used cycling, I will only focus on cycling for now. Please note that I independently tried other leg lengthening exercises like kicking out, jumping rope and ankle weights as I was looking for a stationary bike but in vain. These exercises may have prepared my body because after securing the bike, I noticed results just after two to three weeks.

You may choose to do the cycling routine in the

morning or evening but for at least 10 minutes if you are just starting out.

Therefore, for shin bone lengthening, you will only focus on cycling and sprints during the first 1 - 3 months. Sprints will be used as a trigger for G.H release, microfractures and bone thickness. Thus sprints were central throughout my routine. Feel free to use other methods for increasing G.H like fasting but don't overdo it. If you choose to fast, I suggest you fast on the days you sprint. I already discussed what it takes to be successful with fasting. If you wish to use ankle weights, I will share Jeff's story later. That means, just pedal with raised saddle every day and sprint three times a week.

So in brief, below is the complete beginner level routine.

When you wake up, begin with, the stretches that is; hanging, cobra, dry swimming and cat stretch. Then do the sit ups.
After the sit ups, pedal with a raised seat for 5- 10 minutes but if you have time, feel free to pedal for longer.

You may repeat the stretches during the day, before going for the sprints in the evening. Then repeat the stretches before bedtime.

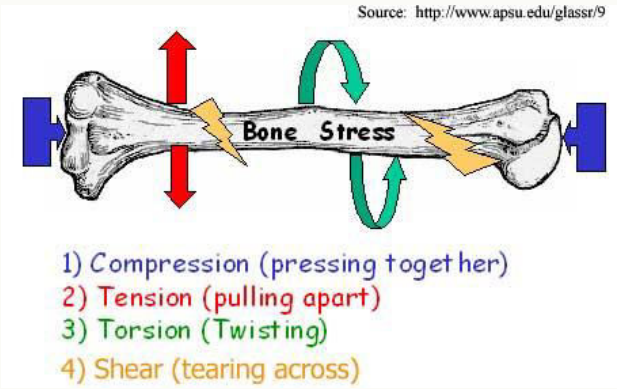
Follow the same routine every day besides the sprints which you will have to do once every two

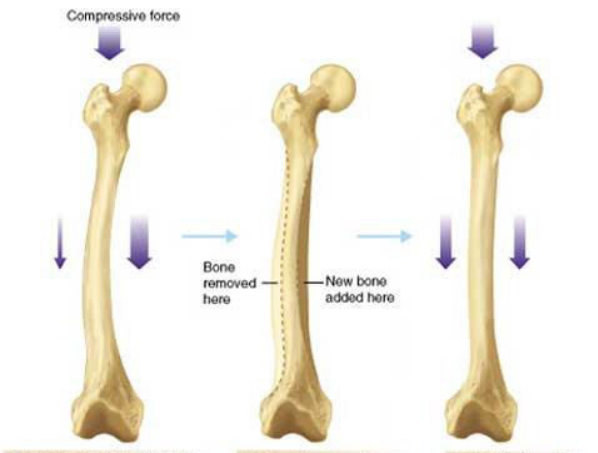
days. I will explain later why you shouldn't sprint every day.

One question I'm always asked is "*can you do both the torso and shin bone routine at once?*" The answer is yes. I just summarized that above.

So that's it. A very easy to follow yet effective beginner stage routine. If you've been stretching for some time, the advanced stage routine is discussed below.

Below is how bone formation and growth takes place after applying stress on legs.





Advanced stage. (If you've been doing the routine for some time and you are a bit flexible)

This is when chaos training will be introduced to the routine.

The chaos training routine.

Sprinting is part of the chaos training exercises. Therefore, sprint on the day you lift weights and do this twice a week. Thus, chaos training may include all the following exercises on the same day.

First, sprint. If the field or area where you sprint is distant, no need to bother. The other set of exercises may be done separately.

Therefore, sprint not necessarily the time you do the rest of chaos training exercises. Even hours earlier.

Then do 10 to 20 pushups depending on the amount that wears you out.

Followed by the chest fly 5 to 10 reps depending on some reps that exhaust your arms.

Then again 10 to 20 push-ups before finally performing the shoulder fly 10 - 20 reps.

Remember to maintain a rest period of about 15 - 30 seconds in between reason being that if you

rest for long, the muscles will be allowed to recover before you have worked them hard enough and it will require you more time to exhaust them to that point when they can't voluntarily move.

The entire work out may be done consecutively within 5-10 minutes, but it will be useful in helping the body release more growth hormones. The point here is to work out the muscles quickly to the point when they can't voluntarily move.

For efficient results, first, have your protein-rich dinner before these exercises. By the time you finish the shoulder fly, you will be completely worn out then you may take a quick shower before going to bed. Make sure you sleep for 8 hours especially

on the day you do chaos training exercises otherwise your body may fail to fully recover from this chaotic exercising.

It 's also essential to do these exercises late in the evening because of the following reasons;

After performing these exercises, you will feel so exhausted a recipe for Rapid Eye Movement (R.E.M) sleep. Sleep researchers have predicted that; total sleep time, and slow wave sleep would be higher in physically fit individuals than those who are unfit and higher on nights following exercise. Remember most G.H is released during the first two hours of REM sleep. If you are the type who goes to

bed then struggle to get sleep, on the days you perform these exercises, sleep will not be a problem. In fact, normally when you exercise, you fall asleep faster, have a deeper sleep, wake up less often, and feel less tired during the day.

This prediction is based on the “compensatory” position, which suggests that “draining” daytime activity (like exercise) would most likely result in a compensatory increase in the need for night time sleep, thereby facilitating recuperative, restorative and energy conservation processes.

Secondly, our body recovers more efficiently when sleeping than when you are awake. So your body may stay fatigued if you do these exercises in the

morning or during the day.

Combine the need to recover your muscles, REM sleep, and the fact that most G.H is released at night all of which make late evening the best time for chaos training.

Important to note; don't expect your body to initiate another growth spurt long after puberty without conditioning or giving it preparation and this is where many get it wrong. So make sure during the first 1-3 months, you do sprints alone before introducing chaos training. This will allow you to understand your body better and what works for your body. If your body doesn't grow

during the first 1 to 3 months, you may be able to identify your mistakes. If you successfully see results even before two months when performing only sprints for G.H, then you are on the right path, and at this point, you may introduce the chaos exercises for more growth hormones to be released in the body and this will be the beginning of a new growth spurt.

The summary of advanced stage routine.

Starting day, say Wednesday.

First thing when you wake up, first hang for 10 seconds, before doing the cobra stretch then dry swimming and finally a cat stretch. The order in which you do the stretches may not count but that's the order I followed.

By this time your body will be used to the stretches so you may employ the back arcing device or your customized hard cushion as illustrated above for 1-2 minutes then do 10 or so sit-ups.

That's all with the torso routine thus, immediately

jump onto your stationary bike.

Pedal for about 2-5 minutes casually. Make sure you do not rush this.

Within 10 to 15 minutes you will be through with the entire routine.

Assuming you work, study or have a busy daytime, when you come back from work in the evening, take dinner between 7 PM -8 PM by the time you do the sprints at about 9, insulin levels will be much lower in the blood. The point is to do chaos training hours after eating not to suppress G.H levels in the blood. Remember insulin levels spike especially immediately after eating carbohydrates and insulin

suppresses growth hormone release. So take more amino acid-rich proteins and minimal carbohydrates especially on the day you do chaos training.

Begin with the sprints later in the evening. Many face a challenge of finding enough clearing for the sprints and end up using treadmills. I suggest you use walkways to your home instead. Any clear distance as long as 15- 20 m may do. After the sprints, use your dumbbells to do chaos training. Remember, it's still Wednesday the starting day.

Every day, follow the morning stretching routine and let it be part of your life like brushing your teeth.

Four days after Wednesday, that is Sunday, do chaos training again.

I realized that when I started taking 4 to 5 days without chaos training because of unavoidable circumstances; I grew more rapidly than when I took 1 – 3 days between chaos training. Thus the body needs ample time to recover. And doing it more often makes the body more accustomed to the chaos training then less G.H will be released.
If you follow the 4 to 5 day rest period, you will also realize that you will do chaos training once a week during some weeks.

That's it. It looks simple, but it's efficient.

If you are targeting growth in shin bones, take note of this;

With shin bone lengthening, you need to know that the bone can't grow without enough growth hormones in the body. If you ‘re targeting growth in the shin bones, all your efforts should be centered on doing whatever it takes to stimulate the Pituitary gland so it releases enough G.H for your body to grow because without enough growth hormones, whatever you do will be a waste of time.

For starters, sprints alone will be chaotic enough. But later you will need to introduce chaos training Exercises. 8 hours of quality sleep on a daily basis will also be a must.

Now when it comes to milk, I have to place a disclaimer. Milk is very good, but don't take too much of it. I used to take two glasses every day which is about 500mls to get faster results. Milk contains lots of sugars which may lead to Weight gain so take it in limited quantities. It's not advised to take more than three glasses a day.

On the other hand, as earlier discussed milk contains Insulin-like growth factor 1. A hormone which is very important for cell division and body growth.

So if taking milk doesn't cause any health issues for you, then you should have 1 to 2 glasses every day.

Then also, have enough amino acids rich Proteins mainly egg whites, beef, fish, and poultry like chicken and turkey. These animal proteins coupled with milk will play a significant role. Enough was said about them under nutrition.

Missing out on any of the above essential factors may be enough to fail you in achieving your goal. That is; sleep, G.H, nutrition, consistency, and how you do the exercises. Some of this will be discussed under the mistakes to avoid.

There are a couple of shin bone lengthening exercises and all of them may work for some but not others. Like earlier said, much focus will be on cycling technique, then the inversion and ankle

weights techniques which are also preferred by many will be covered briefly towards the end of this guide. Remember, I earlier motioned; with shin bone lengthening its three exercises. That is; sprinting, cycling and chaos training. Though, later I realized walking is very important but can't be part of the routine, and it can be done anytime. So take very long walks once or twice a week, please.

Cycling was extensively covered at the beginning, as well as sprinting thus I will throw more light on chaos training. First of all, please make sure that you are past puberty before doing chaos exercises otherwise chaos training may stunt your body.

To know that you are on the right track with shin

bone lengthening; since I used cycling, I will share my experience with cycling. First, there will be spontaneous, fleeting and piddling pains pains both in shin bone and around the knee cap during any time of the day. These pains will not last more than 5 to 10 minutes then they will disappear. They may resurface once or twice during the same day but may sparingly resurface during the next day.

A week or two later, you will notice the knee cap bones slightly widened or showing through skin.

Then these bones thicken as time passes by and the thickness may account for the first quarter to half an inch gain in the legs. With time, the shin bones

also begin to lengthen. Your feet will also be able to reach the pedals even when the seat is raised before increasing it to the next level.
My feet grew slightly before my shin bones but this will not always signal shin bone growth.

All other factors constant, like weight gain, the most obvious sign of leg growth will be the difference in your pants' inseam length.

A few Pointers when following this exercise routine.

When performing these stretches, you'll feel back pain every once in a while. Either perform a dry swim or hang to get some relief. The pain may be the result of back bones relocating to their hitherto positions before the stretches.

If your objective is to solely add a couple of inches to your height, then a few changes will have to be effected in your daily activity routine and that means you'll need to make height increase a priority. If it means clearing sometime and give these grow taller exercises a priority then do that.

This routine will be perfect if you are desperate enough to give it 100% dedication. Many folks over 5'6" may not gain that much in height merely because
they lack the zeal to stick to the routine for long.

You need to know that height gained after puberty through stretching the torso is
never permanent until enough growth hormone is released in the body to facilitate cartilage, muscle and or bone growth including backbones to support your height gain. That's when you may feel free to take a few days off.

Abdominal workouts may also stabilize the gains.

"MOST IMPORTANT TO NOTE; IS THAT THE BODY NEEDS MORE RECOVERY THAN INTENSITY

CHAPTER 5

CYCLING WITH RAISED SEAT SUCCESS STORIES

Note: *The following success stories were picked from a cycling forum as they were without any editing.*

They were from real people and they're quite credible.

1) posted by: Leo

When I was 23 years old I used to cycle to college which was about 10

miles away- so there and back is 20 miles in

total. I read somewhere about increasing saddle height so your legs are stretched when you cycle - so it gives a slight pull on the legs. It's bloody sore to start off with but you get used to it after a week.

I done this every day for 4 months (along with plenty of protein drinks) and increased the length of my legs by over 2.5 inches - increasing saddle height 1/4 inch every few weeks. I honestly believe that any one regardless of age can achieve this and more - the legs are literally forced to grow to accommodate all that pulling and stretching.

But I never see anyone else singing the praises of cycling to increase height - am I the only one?

Source: http://www.gettaller.da.ru

2) posted by: Anonymous

"Cycling for height"

July 10 2002 at 5:31 AM

Anonymous: *Well, I don't know if this is true but I know I increased the length of my legs a few years ago by doing the cycling exercise whereby you have to make sure your legs are fully stretched.*

I used to cycle 15 miles a day and the growth was

really rapid - and I was 27 years old. I'm surprised this sort of thing isn't featured more on this forum as it really works.

Ann's question for anonymous: Was the height you gained in your legs permanent? How much did you gain? So simply cycling should help or are there stretches/exercises for the legs specifically that would get the same results?

Anonymous 'response: *Yes it was permanent.*

I just made sure I cycled every day and I ate a healthy

diet supplemented with protein powder. I *also got at least 8 hours sleep a night. I just can't see why all you people find it so hard to increase your height - it's easy. If you put the effort in and stay healthy then the growth will come.*

An interesting point is that when I cycled for just 6 to 7 miles a day not much happened but when I cycled 15 miles every day then I really noticed the increase. I used to increase the saddle height 1/4 almost every 2 weeks.

Anonymous' other post: "It was me who posted that"

Well I'm glad some people took some notice of my post –I haven't visited this site for a while because nobody seemed interested in this method of height increase. Like I said

you *have to do a lot of miles almost every day to notice the effect… 5, 6, 7 miles isn't enough. You must do at least 15 miles of hard cycling and make sure that your legs and feet are stretching every time. If you're doing it properly – and eating correctly – it should only take a couple of weeks to gain ¼ inch***.** Obviously the younger you are the better the

results you are going to get but you can still get good results no matter how old you are. This is the best method of height increase I know and more people should put the effort in and at least give it a try.

3) posted by: BG

I grew an inch from cycling.. I joined a serious cycling club and did about 40 kms a week. I have grown from under 5'11 to 6'0, my goal is 6'1. I was very pleased with this as I tried 100 other methods including hanging, stretching and basketball, and I never grew a cm.

1 km = 0.621 mile… 40 km = 24.8 miles

4) posted by: 5ft8guy

“Really?”

September 11, 2003, 1:10 AM

For real? you grew by raising the saddle? I used to ride my bike to work and I liked to make my saddle height really high. I was

like 5'4.5 or 5'5 when I was 15 and I became 5'8 when I turned 16. then i got my driver's license and never bike to work again and i never grew anymore.

Let me know if you kept on growing by raising the saddle, I wanna know if it really helps! keep this thread updated!

April 2006: Shinbone routine success story: How Vulcrum (or Jeff) grew 2.5 inches in the legs within 5 months.

Nickname : Vulcrum- Real name is Jeff.

Age **:** 15 years old.

Sex **:** Male

Grade **:** High school, will be in10th grade this September '06.

Ethnicity: Chinese

Before height : Under 5 feet 2

Shinbone experiment started : around January 2006 **.**

Status: Currently doing the shinbone routine. He hopes to become 5 feet 7 by late December 2006.

Current height growth from shinbone routine: 5 feet 4.5 inch in less than 5 months (grown more than 2.5 inches) [as of May 12th, 2006]

Mom's height: 5' 2".

Dad's height: 5'5"

Location: California (USA)

Summary: Jeff, on average, grows about 0.25 to 0.5 cm every week. His growth has been very rapid and consistent because he goes beyond no man has ever gone before – running and sprinting like a mad man!

When will Jeff announce the next update?

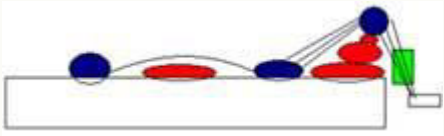
- Jeff will update his growth only when he has become 5 feet 7 which he hopes to happen by late December

2006. We'll hear from him then. His goal is to grow 5 inches within a year, which is pretty insane!

What did Jeff do?

- He basically did lots of intense sprinting/running like a mad man.. He'd sprint for a few minutes 5 to 6 times daily.. He also did extremely intense sprinting/running before bedtime, and then sleep with 10 lb ankle weights each leg (total is 20 lb) for 10-12 hours.

What do his devices look like?



Here's Jeff picture of his sleeping with ankle weight method.

Jeff's after pictures (2 inches taller than before)... there are no before pictures available at this moment.

"I stopped growing a year or two ago and my recent growth has been very rapid – 0.25 to 0.5 cm every week. I've grown a total of 2.5 inches in the legs within 5 months. Whether it's a growth spurt or not, there is a very REAL connection between my INTENSE routine and recent growth. Read my story very carefully and then draw your conclusion." **– Jeff**

Ankle weights routine that works.

In general, jog with 2.7 to 4.5 kg ankle weight each leg for 15 to 30 minutes at night. Sit or lie

down with 3 to 5 kg ankle weights each leg for 1 to 2 hours daily right before bedtime. Then go to sleep immediately.

Do NOT stand or walk around and make sure your remote controls are within reach so you can turn the TV, DVD, sound off when you are ready to go to sleep.

You may choose to take protein powders after the

workout though this theory is based on those who are successful with ankle weights. I personally don't endorse any supplements

CHAPTER 6

MICROFRACTURES

There is some but insufficient scientific data to support some claims regarding micro fractures.

In 1892, Dr. Wolff's theory about bone transformation was published. Only a few decades later, bone remodeling is now a medical fact! Bone is anisotropic; meaning it has different strength and stiffness depending on the direction of the load). Bone will grow, build, adapt, transform, and remodel due to microfractures and the large stress exerted.

Microfractures + Piezoelectric force + HGH + Sleep = Height growth

Microfractures; Are extremely tiny fractures or gaps that exist in the legs following a vigorous high-impact exercise such as sprinting or running. Bones are designed to heal very rapidly whenever there is a fracture.

Piezoelectric force; Bone is piezoelectric; meaning it generates electric fields in response to mechanical stress. Loading (stressing) a bone produces in it a small electrical field called piezoelectric force, that's needed to stimulate new bone formation. The

magnitude of the piezoelectric sensitivity coefficients of bone depends on frequency, on direction of load, and on relative humidity.

The 2 black arrows point to the tiny dots in the shinbone which indicate microfractures or extremely tiny fractures that are not visible to the naked eyes.

Micro-fractures will be created after jogging with ankle weights or sprinting/running. Remember, these fractures heal very fast possibly within 5 to 20 minutes. Thus, you must stretch them quickly.

MICROCRACK ACCUMULATION AT DIFFERENT INTERVALS DURING FATIGUE TESTING OF COMPACT BONE

(The Journal of Biomechanics)

According to the journal, Fatigue damage in bone occurs in the form of micro cracks, call them fractures if you want. This micro damage contributes to the formation of stress fractures and acts as a stimulus for bone remodeling. Bones, therefore, have an advantage over most engineering structures

in that they have an inherent ability to repair damage.

However, if this damage accumulates at such a rate that the capacity for bone repair is exceeded, stress fractures result. These fractures occur commonly in athletes and soldiers engaged in high intensity, repetitive activities such as marching or running.

If, on the other hand, damage accumulates at 'normal' rates but the bone's repair mechanism is deficient, fragility fractures result, which occur commonly in ageing bone

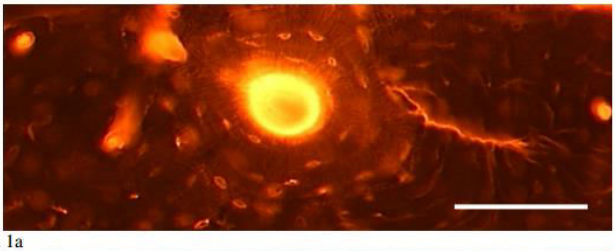


Fig. 1a

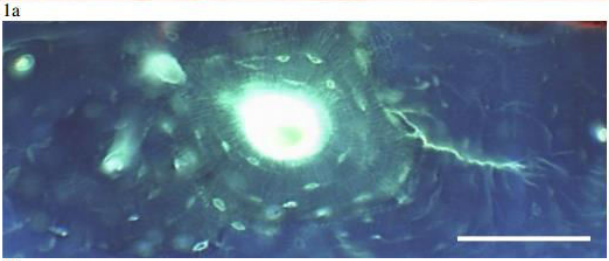


Fig. 1b

Fig. 1 Calcein labelled microcrack viewed using (a) green epifluorescence (λ=546 nm) and (b) UV epifluorescence (λ=365 nm). This microcrack is located in interstitial bone but part of it is found on the perimeter of a cement line surrounding a Haversian system.

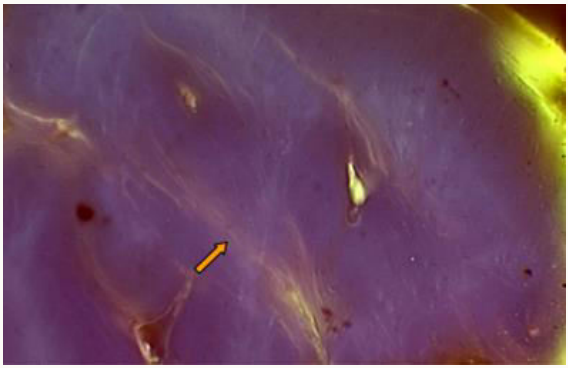


Fig. 3 Example of propagating micro crack, initially stained with xylenol (orange arrow) and then stained with calcein (green arrow) showing it, to have been formed during the first 50,000 cycles and then to have grown further between 50,000 cycles

and failure. Other xylenol orange labeled micro cracks can also be seen in the image.

Inversion table routine that works.

Based on facts regarding micro fracture creation in bones, a great inversion table routine will be as follows;

Note; the inversion table has an added advantage of stretching the cartilage between your knees and your thigh sockets.

Just like you need to stretch the back bone every day for good results, you will need to use the inversion table every day but you will surely need plenty of time to effectively use this technique and you may have to apply it every day for quick results.

After jogging, Use the inversion table for 30 minutes to an hour. Jogging may as well be done every day because it's different from sprinting.
Then an hour of the inversion table technique to stretch the micro fractures.

You will need the sprints or chaos training when using this.

So, the routine will be as follows including sprints;

Do the sprints, jog for an hour or so, then use the inversion table for about an hour. If you need to use the weights as well, apply them immediately after jogging for an hour before using an inversion table for about an hour. Then rest for another 30 minutes to an hour before walking.

Using this technique with ankle weights will require you to have plenty of free time.

CHAPTER 7

COMMON MISTAKES TO AVOID

(Steps to take to grow taller after puberty)

1.Stretch On Daily Basis.

When you add a couple of inches to your torso, you may think it's time to rest with your inches in your pocket. Poof! All Your gains will disappear in thin air.

You will start feeling shorter than normal as time passes by. I've mentioned it a couple of times, that

height gained in torso isn't

permanent but stabilizing it is very simple. Just watch your posture, perform the stretches in the advanced stage routine every day before stepping out, and do the sit ups. All this may be done within 5 minutes every morning before stepping out. If you're in a rush, then just use the back stretcher for a minute and 5 to 10 sit ups. Your torso height will be stable all day.

2. Inconsistency

This is one of the biggest yet most common challenges that will hinder your progress. In most cases, inconsistency may not be an option but since these exercises are time consuming, you may have other priorities that may derail you during the course of the routine. If you are following the routine one week then off for a week or two, don't expect results. That's why I suggested you clear time say a month or two to fully focus on the routine or make height increase a priority in your life. This will allow you to notice any slight mistake that may be hindering your progress. Because the mistakes are many yet any one or two of them are enough to affect the results.

3. Not keeping your mouth shut

Don't go telling every Tom, Dick and Harry about your goal of increasing height especially if you're past puberty. Not only will you be scoffed at ninety percent of the time , a study conducted at New York University found that blabbing about your goals can give you a false sense of accomplishment, making you less likely to actually go after achieve them.

But at least tell your girlfriend, right? Nope.

"By not telling anyone, you're making sure your goal is something you're really doing for yourself," says K.C. McCulloch, PhD, an assistant professor at Idaho State University who worked on the study.

You won't run the risk of letting anyone else's

opinions get in your way if you keep your mouth shut.

"What stops a lot of people from doing the things they dream of is other people," says Susan B. Wilson, a life coach in Michigan and founder of Get Over It, Move On!

"If you tell someone you want to apply to a graduate program, they may go on about how terrible the campus is... and you may start to believe them when you really should be trusting your own gut."

Beyond that, loved ones may have ulterior motives for being naysayers. If you announce that you're

going to be devoting tons of time to a big goal, a good friend or your significant other may worry that he or she will see less of you and subconsciously distract you from the finish line.

Doing something just for you feels selfish in a really good way. *"Women tend to overextend themselves for loved ones,"* says psychologist Lucy Jo Palladino, PhD, author of Find Your Focus Zone. *"So if they can have something that is solely theirs, it can feel really special."*

4. Not having enough G.H

released by the body.

Some folks try the cycling method, ankle Weight or the stretches independently hoping to get results. Without G.H, you may luckily grow slightly but you will be missing the intrinsic value of G.H. I already mentioned how chaos training was a turning point in my life so the role of G.H can't be emphasized more. Research though shows that most G.H is released after Weight lifting, H.I. I. E and during sleep. You may fast as well but not every day and I personally never used fasting for long so I don't have much experience with it. For most females though, fasting may be an option if you are avoiding weights or for some reason or if you can't sprint.

5.Not including abdominal work -

outs in your Routine

Again, stretching alone without abdominal work-outs is a waste of energy. At one point, I decided to throw abdominal exercises out of my grow taller ex ercise routine thinking they were wasting my time. I lost almost all the height I had gained in the torso in a very short time.
I regained my height in torso just after a week of reincorporating the sit-ups on a daily basis. You may go a day or two without these workouts but please don't abandon them forever.

6. Not *having enough Quality*

sleep on a regular basis.

According to scientists from the University of Wisconsin , at least 90% of bone growth occurs at night. Sleep is of vital importance during the healing/recovery process. Your muscles will become rigid and you will end up losing a couple of Inches if you're always fatigued. Also, R.E.M sleep is very vital for your body to fully recover.

Ignore your sleeping posture and focus on the quality of sleep with whatever posture.

If you have a problem achieving REM sleep, then ensure you to go to bed by latest mid night.

Initially it may be hard to adjust but in a few days, your internal clock will be adjusted and you will be a ble to adjust.

If getting sleep is a problem, then try taking a cup of warm milk before going to bed and you will sleep like a baby. Your body requires a fatigue and stress free environment to continuously grow after puberty.

7. Doing chaos exercises more

than twice a week.

When you're just beginning, desperation kicks in and you want fast results. You may think that by spiriting or doing chaos training more often, you will get faster results. But this is counterproductive. There's nothing you will do to force your body to grow faster. Growth is a process.

So doing chaos training exercises very often will instead stunt your body and you will end not seeing results. I don't advise you to fast very often as well. Less is more when it comes to this. Unfortunately, I learnt this the hard way after wasting a lot of time.

The law of diminishing returns applies here.

Every first time in the week you do chaos training, more growth hormones will be released and the a-mount released reduces as you continue doing chaos exercises. Most G.H is released when Chaos training is done spontaneously shocking the body to release lactic acid for muscle recovery. Lactic acid then triggers G.H release. Do chaos training more frequently, then the body becomes accustomed and it learns to recover the muscles with less lactic acid released in blood to recover the muscles.

In fact, your body also needs ample time to recover from these chaos exercises.

8. being pessimistic

This is another major challenge. In fact if you have doubts that you will make it, , I advise you work on your mindset otherwise this will not work for you. Everything begins in your brain the moment you begin doubting what you are doing, not only will you lack the zeal

to follow the routine, you may even doubt any gains you may achieve. Staying positive is extremely critical here. If you're below average height, staying positive may not be a problem since you may be facing a number of challenges with your stature and the only option is to keep trying until you make it. Even minor gains will excite you and you'll be

optimistic and positive which is recipe for success in any field. Those who are above average don't know what it means to be too short so, there's plenty of room for pessimism

9. Ignoring the Role of hydration.

I already discussed how staying dehydrated for long may compress the discs in the back bone. In fact, every time your body is dehydrated, you feel shorte r than normal. Keeping your body hydrated will have the opposite impact on the discs which will make you slightly taller.

In addition; According to sports nutrition expert Dr. John Berardi, your muscles will not gro w to their maximum potential if you don't drink enough water.

10. Measuring your height very often to check your progress.

Every time you measure your height and you find yo urself at the same height or even shorter, it leads to negative feelings. You will be pessimistic and feel like you're wasting your time which will dampen your spirits.

You will stand against your Wall mounted height rod every morning and evening hours to check if you are progressing, sometimes finding yourself shorter which will be depressing.

This will psychologically impact the way you work-out.

Measure your height only once or twice a week and the little progress you will have made will be enoug h to boost your spirits .

11. Abandoning your posture

This is one mistake you may easily find yourselves making simply because you stand, sleep and sit in whichever posture you deem comfortable and before you know it, you will be losing all your gains to posture.

The two common positions that are likely to affect your height are sitting and sleeping positions. When seated, always cushion your back to keep your back in an erect position. I don't advise you to mind much how you sleep at night since it may jeopardize the quality of sleep but during your wake time or during the day, if you find yourself spending a lot of time on your mattress, then always place a pillow under your belly or under your back.

Supplementary Mistakes

1. Not including milk and amino Acid rich proteins regularly not necessarily every day. Amino acid supplements may also do the job.

2. Jumping rope and kicking out are easy and cheap to do but not very efficient and not chaotic exercises, so they just eat into your time.

3. Not including long walks two to three times a week especially if you want to lengthen legs.

4. Sprinting on treadmills isn't as effective as running on a hard surface. So avoid sprinting on treadmills at all costs just because you may miss out on bone thickening, and microfractures which are created by the stamping impact of sprinting on a

hard surface. Your muscles may also not be worked out as intense if you sprint on a treadmill.
If you must use a treadmill because of weather, then just set the incline to at least a level 1.

5. Avoid carrying heavy loads on your back. Especially backpacks.

6. If you are a Weight lifter, utilize the days of chaos training otherwise you may first prioritize height increase before muscle building.

Summary of Steps to Take to Grow Taller After Puberty

- ✓ Stretch Regularly.
- ✓ Ensure you increase your body's ability to release growth hormones naturally.
- ✓ Include a few abdominal workouts in your routine but regularly.
- ✓ Ensure you have a good comfortable 8 hours of sleep.
- ✓ Keep your mouth shut
- ✓ Watch your posture
- ✓ Don't do chaos training more than twice a week.
- ✓ If you're pessimistic, this isn't for you.
- ✓ Ensure to hydrate very often

- ✓ Don’t measure your height to check progress very often

CHAPTER 8

DAILY MEAL PLAN

Nutrition was already covered. However, you will need a simple to follow yet efficient regular meal plan that will include all the essential nutrients at every meal and snack. This will ensure that you'll naturally have less room for nutrient-poor choices *(In soft drinks, chips, candy, desserts and alike.)* that increase insulin and may in turn affect growth

You aim should be; to adopt a daily nutrition or meal plan that involves all the most critical nutrients for growth.

Begin your day with a fruit say a banana or any of other nutritious fruit. Under nutrition, find the fruits with the nutrients you need most for instance if it's zinc, a ripe banana will be a good example.

Then when it comes to the main breakfast, you may choose to have cereal or whole grain bread. If you decide cereal, organic whole grain oatmeal will be a good option. whole grain Oats and bread contain soluble fiber. This type of fiber dissolves in water and tends to slow the movement of food through the digestive system.

If you chose whole grain cereal, it may be an opportunity for you to add low-fat milk. Anywhere between 250ml - 500ml will do.

If you choose bread, you may have it with a couple of hard-boiled eggs. Egg whites contain amino-acid rich proteins while the yolks contain Vitamin A, proteins as well as other minerals like calcium, magnesium, potassium, iron, and zinc.

The time when you have your meals may not count much since that may depend on circumstances. After breakfast take at least a liter or two of water to keep your body hydrated.

If you wish to have snacks, between main meals, snacking on seeds like pumpkin seeds and other nuts like peanuts will be a good idea.

When it comes to lunch and Dinner, you may throw anything into the mix as long as it facilitates body

growth.

Lean Meat, Poultry, Fish, Beans, vegetables, potatoes, whole grain rice, whole grain pasta, fruit juices and alike.

*If you have a special weekend diet, the **paleo** diet will be the best option.*

Use the nutrition chapter as a guide when deciding what to eat and when and by the end of the day, you may require no supplements.

The main pointers here are;

Take at least 1-2 liters of water every day.

Two glasses of milk every day.

Stock up on pumpkin seeds or other zinc-rich seeds

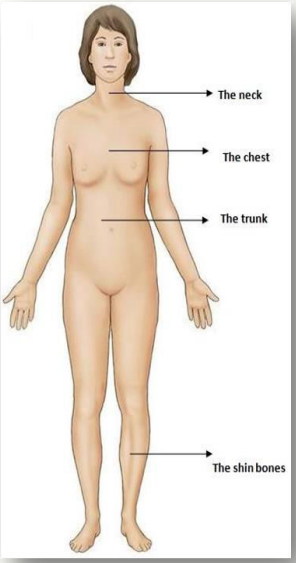
and nuts. You may snack on them anytime during the day.

Broccoli, and other cruciferous vegetables should feature very often on your menu.

Eat animal meats at least three times during the week, as well as eggs.

CHAPTER 9

FINDOUT WHICH SECTION OF YOUR BODY IS GROWING.



As discussed earlier, your body as the potential to grow in the neck, thoracic, abdominal, and lumbar areas.

It's imperative to take measurements to each section to know where you are progressing or falling short.

This is very important because your daily workout routine involves all these areas so you may, for instance, gain an aggregate height of 2 inches without knowing where exactly the growth is coming from. This may be your target, but then your body may look disproportional so knowing where progress is coming from will allow you to put more efforts to where you are falling short which

will enable you to make your body proportional and increase your overall height even faster.

So, note somewhere if necessary your before height. I used to do so in the beginning.

The neck and chest.

Place your tape on the top of your head to the point where the chest ends which is just below your chest. You may combine the chest and neck because their aggregate height increase isn't likely to be more than an inch.

The abdominal area (trunk)

Measure from just below the chest to just above your groin. This is likely to contribute a significant amount of height of up to 1 to 3 inches through stretches and abdominal workouts.

The shin bones.

Growth in shin bones may contribute 1 – 4 inches depending on time invested. Simply take measurements from the middle of your knee joint to the bottom of tour foot. If your knees are fleshy, finding a spot to mark may be a challenge otherwise there's a slight dip between the knee joint area when you look at the inside of your leg. Take

measurements from that line to the bottom of your foot.

Ways to Measure your Height

There are different ways you may measure your height.

You may use a measuring tape, divide the body into three parts as illustrated above then you add up the measurements to get your total height.

Alternatively, you may stand against a wall probably one of your bedroom walls and mark your before height then check again after a week or two and see

the difference between before and after to know your progress.

I grew with a bit of consistency so every four months I expected some progress.
You may also experience the same. So checking on a weekly basis shouldn't be meant for progress rather to find if you are losing some height and if that's the case, then based on the checklist discussed below, you may need to do something about it.

Finally, a stadiometer may help.

Why Your Height May Fluctuate Throughout the Day by up to an Inch.

First of all, as mentioned earlier, DO NOT check your progress very often. Secondly, your height will never be stable while performing stretching exercises due to the following circumstances;

a) Very early morning hours before breakfast you will be taller than normal.

b) Moments after eating your height reduces a bit in most cases.

c) After long walks, exercising or when the entire body is exhausted, you will be slightly shorter. Some report losing up to 1- 2 inches.

d) When you are dehydrated, your muscles will shrink making you a little shorter.

e) When you don't have enough sleep , you may be shorter the day after especially when fatigued.

f) When you are dehydrated you will be shorter than normal. I already discussed why.

g) When you go couple of days without doing sit ups or the stretches, you may lose some height.

h) Last but not least, according to Elizabeth Lombardo, Ph.D., MS, PT, a psychologist and physical therapist in Wexford, Pennsylvania. Stress affects our musculoskeletal system, resulting in tight, contracting muscles and spasms in muscles.

Which will in the end make you lose an inch or two? Thus when you're stressed, you may be shorter than normal.

A number of variables will affect your height throughout the day hence when you find yourself shorter than expected, don't panic or be distressed. Stay calm and try to find the possible reason. This happened to me several times during the course of the routine and I know how distressing and demoralizing it can be to find yourself an inch or two shorter.

What I noticed is; the best time to measure your height is late in evening long after lunch but before dinner.

CHAPTER 10

HEALTH CONDITIONS AND THAT AFFECT BODY GROWTH.

As mentioned earlier, body growth and development is influenced by both natural and environmental factors. Ill health contributes to the natural factors. Health conditions that may affect body growth include but are not limited to;

Arthitis

when children develop joint inflammation, growth of the nearby bones is often affected. If it occurs

before age 3, the affected limb may be longer than expected, but if it occurs after age 9, the growth plates may close earlier than expected, leading to reduced leg length.

Anemia

The blood is made up of red blood cells, white blood cells, platelets, and plasma.

The predominant cells in the blood are the red blood cells whose primary function is to supply oxygen and nutrients to the body's cells and to remove waste products.

The red blood cells can transport oxygen because they contain hemoglobin, a complex protein that contains iron.

Anemia results when the number of red blood cells is reduced below normal, or there is a decrease in the amount of the body's hemoglobin.

The most common cause of anemia in children and adolescents is iron deficiency. Iron is essential for all tissues in a young child's developing body.
Adolescent girls may be at risk due to their irregular eating habits (caused by concerns about body image) compounded by normal menstrual blood loss.

Growth Hormone abnormalities

Children with reduced growth hormone have a much reduced growth spurt around the time of puberty, leading to short stature.

Conversely, if excessive growth hormone is present before growth plates close, "*giantism*" a dramatic increase in height — may follow.

Hypogonadism

This condition is marked by a reduction in sex hormones, including testosterone and estrogen. Affected persons may have little or no growth spurt at the time puberty is expected.

IMAGe syndrome

This is characterized by the association of Intrauterine (inside uterus) growth retardation, metaphyseal hip abnormalities (and short limbs), as well as Genital anomalies.

A gene mutation thought to be linked to large stature has been pinpointed as the culprit of the so-called IMAGe syndrome.

Children with *IMAGe* syndrome have stunted growth before birth hence they end up with a smaller-than-normal body and organs. Complications from the disease can be life-threatening.

Hypothyroidism

a condition where your thyroid gland does not make enough thyroid hormone.

A reduction in the normal amount of thyroid hormone during childhood typically leads to short stature, among other problems, such as poor school performance, fatigue, constipation and cold intolerance.

Osteoporosis

A condition that causes bones to weaken and become so brittle or fragile to the point that fractures can so easily occur..

People tend to lose height as they age mainly due to osteoporosis and reduced water content in the

disks (so that the distance between each vertebra is reduced).

On average, women lose about 2 inches over their lifetime, while men lose about 1 inch.

Diabetes

A group of metabolic disorders in which there are high blood sugar levels over a prolonged period. Symptoms of high blood sugar include frequent urination, increased thirst, and increased hunger. If left untreated, diabetes can cause many complications.

Diabetes that starts during childhood (usually type 1) used to be a common cause of short stature in

children, but early recognition and treatment has reduced this effect on height.

Cystic fibrosis

A genetic disorder that affects mostly the lungs, pancreas, intestine , kidneys, and liver. Long-term issues include difficulty breathing and coughing up mucus.

Poor linear growth and inadequate weight gain are very common problems in *cystic fibrosis* (CF) children. The most important factors involved in growth failure are under malnutrition, chronic inflammation, lung disease, and corticosteroid treatment.

Kidney failure

Researchers have found that many factors cause growth failure in children with chronic kidney disease.

In addition to removing wastes and extra fluid from the blood, the kidneys perform important functions for a child's growth.

Damaged kidneys can slow a child's growth by;

Causing mineral and bone disorder, which occurs when vitamin D is not turned into calcitriol, which starves the bones of calcium.

Phosphorus levels rise in the blood and draw calcium out of the bones and into the blood, causing the bones to weaken.

Creating an imbalance of sodium, potassium, and acid-base levels in the blood, also called acidosis. When blood is not balanced, the body slows growth to focus energy on restoring the balance.

Decreasing the production of erythropoietin. When erythropoietin levels are low, a child may develop anemia.

Treatments that may affect body growth.

Asthma inhalers

Research, conducted by the federal university of Rio Grande in Brazil and university of Montreal in Canada, showed that children who used steroids for asthma had slower growth rates compared to those

not using the medications.

The report goes on to suggest that children treated daily with inhaled corticosteroids may grow approximately half a centimeter less during the first year of treatment."

Corticosteroid therapy

These powerful anti-inflammatory medications can affect growth through their effects on bone development. They may be prescribed for a number of conditions including Crohn's disease, ulcerative colitis, asthma or arthritis. If taken during childhood for prolonged periods, growth retardation is common.

CHAPER 11

THE POWER OF YOUR MIND

"There are no limitations to the mind except those we acknowledge and Whatever the mind of man can conceive and believe, it can achieve " -

Napoleon Hill

Your mind will play a central role when it comes to achieving your objective of height increase.

First of all you must believe that you will make it. Believing alone will not make you grow tall but it will help you have a positive mind set.

One mistake many make that makes them give up on their objective of height increase is talking about it openly. This has already been discussed further under mistakes to avoid.

Secondly try as much as possible to use imagination. Trust me, it works, though indirectly. I remember vividly imagining how I would look like if I had longer legs moments before going to sleep for a couple of days. Then I started dreaming about it. I experienced one or two dreams in which I was standing taller with longer legs and reflecting on those dreams every morning just kept me all excited and positive. I started believing that it would happen and finally it happened.

There're other techniques used by some folks like self suggestion. Some say that just by talking to themselves they're able to become taller. Like this testimonial on one of the forums..

Re: My story of growing tall

*« **Reply #10 on:** November 09, 2011, 11:50:18 PM*
*»**Publish***

Dame and Sonalee, I kept telling myself that I'll grow taller, felt it and acted as if I was really taller. I did these things consciously for a while but then I forgot about it totally. I just did not bother about it anymore and went about my life. After around 3 months I realized I had grown taller

because people started telling me I look taller, everywhere I went!

But I don't think self suggestion automatically makes you taller, rather it forces your mind to give you the appropriate steps you should take to achieve your goal in form of hunches. What I personally did was to talk to myself aloud while thumping my chest that "I have to grow taller, I *command you my subconscious to tell me how."* I did this every time I felt low or distressed because of my height and weeks later, I was able to conjure a workout routine that enabled me to achieve my objective. One thing I've come to learn is that your mind is very powerful and it's always ready t hand you solutions to dominating challenges, as long as

you're ready to take action. In most cases of you won't even be aware why you are doing whatever you are doing simply because your subconscious will be in control . That's why I insist that being positive is a must. Your mind won't act if you have doubts or if you are pessimistic. It needs a strong stimulus to force it to act in a particular direction. Auto suggestion, law of attraction, imagination, and faith. All of them work but the moment you have the slightest bit of doubt that you can make it, you will be doomed.

I will leave you with Angel's story picked from one of the forums I hope it helps…

Hey lovely people 

I grew around 5 to 6 inches tall in 3 months, all thanks to the lovely Universe who responded so quickly to my desire. I am getting quite some PMs asking me how I did it. So I thought I will share it in a post here as it will be helpful to anyone who needs it, and anyone can access this even when I am not online and hence not able to respond to PMs immediately. I am copy pasting my story, which I just shared with one of our members in a PM.

Before telling you what and how I manifested my desire, I'll share a small incident with you. It makes me smile every time I think of it. A couple

of days back, my boyfriend's mother came home. After talking casually for a while she suddenly exclaimed 'Hey you look really tall. Is it because of your dress?' I said 'No I have grown tall really'. She kinda made fun of me and said 'Oh ya right! How can you grow at this age (I am 21 years old)?' I just smiled and said 'Its possible'

The reason I am telling you this is, most people have preconceived notions about everything, EVERYTHING! Can you believe that?? They tend to believe that there is a limitation in everything which includes our physical growth. They also believe that physical growth, especially height, is by large beyond our control. When living in the midst of such people, we also tend to absorb those

beliefs subconsciously. Has this happened to you? It definitely happened to me. So once upon a time, I truly believed that after puberty girls' growth becomes slow. And guess what, I actually stopped growing pretty much after puberty! I was 5' 2" and the tallest in class when I was 11 years old (thats when I attained puberty) and by 18 years I was just 5' 3"!! I hadnt grown more than an inch in 7 years because I believed that was not possible.

Then I learnt about LOA a couple of years ago and started manifesting many things. Only a few months back I decided to increase my height with this knowledge. Here is what I did:
I got clear with how tall I wanted to grow. I

wanted to be 5' 9". I decided NEVER to think that I am short. If someone commented that I am short I would just ignore it. I decided not to 'try' to grow tall because then I would just keep attracting 'trying'! So I started acting 'as if' I am tall. I would just close my eyes and feel nice, proud and confident because of my new height I was about to get into. I am not very good at visualization so I instead focused on 'feeling' taller rather than 'imagining' myself taller.

Then I did some stretching exercises (which was a part of my dance warm-up sessions anyways) just to convince my mind that I am taking rational steps. I didnt spend much time exercising though. Thats it. After a while I totally forgot

about growing tall. I got busy with other work and stuff. Suddenly people started telling me that I look taller. So I checked my height and I was 5'8"!! Just one inch lesser than what I wanted. But now I feel this height is good. 5'9" could have looked a little manly for me. That's my story. Feel free to ask me anything more!

All the best

Lots of love

Angel

Logged

I am living the life of my dreams...NOW

Conclusion

It's quite evident that increasing height after puberty is possible, but many aren't successful because it takes a lot of dedication, patience, self-motivation, initiative, as well as focus to be successful.

This is the reason why desperation plays a significant role. Many are concerned about growth plate's closure, but researchers on this topic concede that the exact mechanism behind epiphyseal fusion is still not completely understood. And experimental studies are complicated by the fact that there is a species difference between humans and rodents whose plates don't fuse.

Thus growth plate's closure alone doesn't always mean the end of bone growth. Bones are always bristling with life and can remodel and grow after puberty which is why cosmetic leg lengthening surgery to individuals who are way past puberty is a success irrespective of growth plate's closure.

DO NOT haste anything hoping to get quick results. Just let everything workout naturally, and the body will play its role of catch up growth. But most importantly, you may need to clear some time to have your brain and efforts entirely focused on increasing height.

During my first leave of two months, I grew more rapidly than I did during

work.

If you have any questions or still need guidance, feel free to get in touch through the contact link on the website.

Wish you all the best. Cheers!