Building

Your Strength for Flipping

Step-By-Step

Created By:

FREESTYLE TRAMPOLINE ASSOCIATION

Strength And Conditioning:

There is a lot of research available online about how to properly strengthen and condition the body. In this document we will outline how you can do that specifically for acrobatics. Many acrobats under-value conditioning because they believe they can 'out-smart' the dangers of training. Training is a building process which is extensively outlined in the book entitled ***'Coaching Creatures'*** from the GRT Network.

Let's start by saying you can't out-smart training. In reality, training is the idea of breaking down the body systematically to rebuild it stronger than before; either mentally, physically or bio-energetically, by creating thicker and faster muscles and networks of neurons in the body and brain.

As the body finds itself in a new environment it will survey the landscape physically and mentally to try to determine what behaviours will keep that person in one piece. Naturally the person will undergo a trial and error process determining what works and what doesn't. This trial and error process will have some bumps on the road because the body can't anticipate every single possible circumstance that could happen. Instead, the body averages out each of these bumps and makes simple large scale decisions that will help keep the body intact, as it moves through the different environments, both physically and mentally.

Strength and conditioning happens naturally without people having to even think about it. If you live in part of the world that does not have paved roads and you walk barefoot more often than most, the muscles, tendons and skin on your feet will 'toughen up' and learn that by building more muscle fibres and creating tougher skin will help take the stress off the bones and the body as a whole.

In sports, athletes have large demands put on their bodies and therefore specific training programs are built to help athletes develop extra strength and toughness, even though their natural environment does not demand it. No human living in the 21st century will ever 'naturally' grow muscles as big as a body builder. They build only as much as is necessary within their environment.

Athletes, who on average have normal lives within environments that do not require extreme strength or speed, will train many hours a week to artificially build an environment around the body. This will help in those few instances where they actually need the unnecessary strength during competition.

If you plan on doing amazing feats of athleticism in the acrobatic world you need to look at conditioning as a defence mechanism and not just a way to jump higher or do more flips. You will build muscles that will allow you to build bigger skills, along your rotational pathway, but… **even more importantly it will allow you to do the inevitable 'trial and error' process with increased safety and less injury**.

Think of training as boxing with a world class boxer, like Muhammad Ali. The trial and error process on the trampoline will constantly throw 'punches' at you, so you need to be able to withstand those punches to keep going on your rotational pathway. If you believe you will simply 'dodge' all the punches you're sadly mistaken. You need to *build* your body to withstand the trial and error process that comes with learning new skills. Then you can build even more strength to allow for larger skills along the pathway.

Many athletes are taught to try and dodge the punches and at first that may seem like a logical perspective. After many years of flipping you will realize that you can't dodge them all. It is better to build a tough body that can simply keep moving forward as the sport keeps throwing punches at you. It is a valuable approach to life as well…

The Building Process:

Building your body is the same as building your behaviours. You need to do it *Step-By-Step*. The following monthly conditioning programs will provide a template for all athletes who wish to begin preparations for this trial and error process. Some research indicates that every two weeks a new program should be provided to keep the body adapting; but in the realistic world you will most likely only do 3 - 5 times a week. A month program will be enough to reach the adaptation plateau before switching up the program.

The program will begin with absolute beginners that have never even seen a training program and will build up to an Olympic level athlete. There are many variations with this program but it is a general guide for athletes who chose to condition on their own, without a coach who can administer a specific program. Feel free to make any alterations you wish but please understand that this is a building process so please build your program systematically as outlined in this document, even if you choose to alter the exercises.

People tend to over-estimate their abilities and this may cause the muscles to try and react to an extreme situation, that it has not been built to do, which can result in a pulled or strained muscle. You can build your muscle strength for acrobatics systematically *Step-By-Step.* This will prevent over-use injuries and reduce training accidents because the body is ready to 'fall down' without breaking.

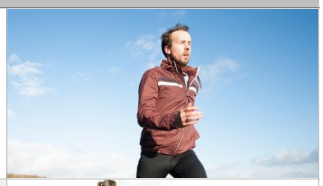
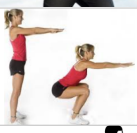
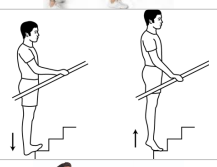
You might start a conditioning program with a set of exercises that are too difficult and do not allow the body to become used to the new stimuli. This causes the body to reject the exercise program as it is perceived as an enemy. The *"Fight or Flight"* response will activate and the athlete will subconsciously look at training as an enemy that needs to be avoided. For this reason you will see that the building process that follows is simple and gradual so that athletes may even feel it is too easy. This is not a race to the finish, however, it is a gradual building of muscles and core strength, backed by research that is much more effective than a deadline. In much the same way we build our skills along the rotational pathway degree-by-degree we will build muscles fiber-by-fiber and not simply just compare ourselves to the body builder who can life 500kg with one leg.

Many of the exercises are not described in detail and are just a list of exercises that the FTA recommend athletes learn with a picture reference. These exercises were chosen because they can easily be done in any environment, no matter what equipment is available. Advanced exercises will require specific equipment. The GRT Network App has video tutorials about each exercise. Please download to be able to learn any exercises you are not familiar with.

"Conditioning is not a race,
it is a defence mechanism for the trial and error process"

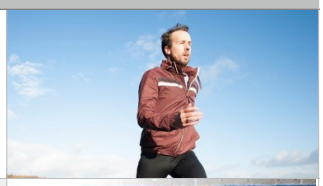
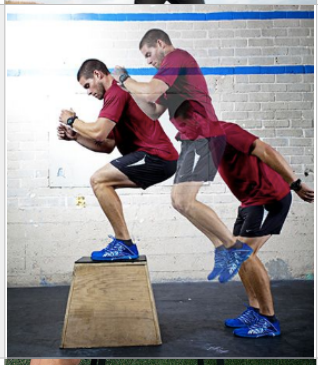
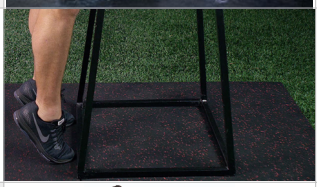
~ Greg Roe

Month #1:
(3 Times A Week)

Exercise	Reps/Duration	Sets	Demonstration
1 Km Run	x1	x1	
Jump Down From 3 foot high Platform And Stick Landing	x10	x2	
Ankle Raises	x10 Each	x2	
Lunges	x10 Each	x2	
Head Stand Hold	x20 Seconds	x2	
Chin Up Holds	x10 seconds	x2	
Hollow Rock Holds	x15 seconds	x2	
Back Arch Holds	x15 seconds	x2	

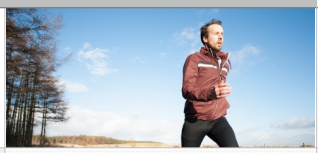
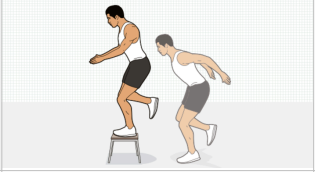
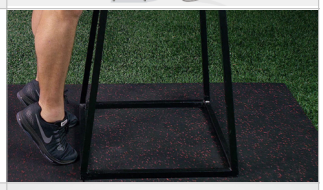
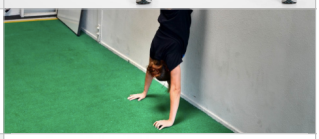
Month #2

(3 Times A Week)

Exercise	Reps/Duration	Sets	Demonstration
1 Km Run wearing backpack with camera equipment	x1	x1	
Jump Up Onto 3 Foot Block And Stick Landing	x10	x2	
Bounding Onto 1 foot high block of toes *(No heels)*	x10	x2	
Lunges Backwards	x10 Each	x2	
Head Stand Hold	x30 Seconds	x2	
Chin Up Holds moving side to side	x5 each side	x2	
Rotational Crunches	x15	x2	
Back Arch Holds	x15	x2	

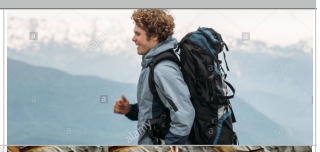
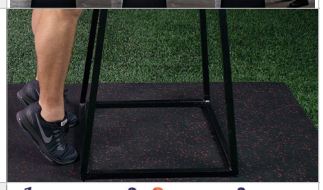
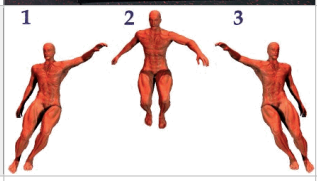
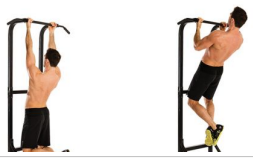
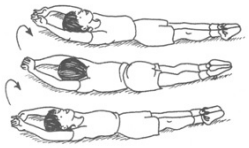
Month #3

(3 Times A Week)

Exercise	Reps/Duration	Sets	Demonstration
2 Km Run	x1	x1	
Single Leg Jumps	x10 each leg	x2	
Bounding Onto 2 foot high block of toes *(No heels)*	x10	x2	
Lunges Sideways	x15 Each	x2	
Handstand Against Wall (Face Wall)	x20 Seconds	x2	
Chin Up Holds moving side to side	x5 each side	x2	
V -Snaps	x20	x2	
Deadlifts With Light Weights (20-30lbs)	x15	x2	

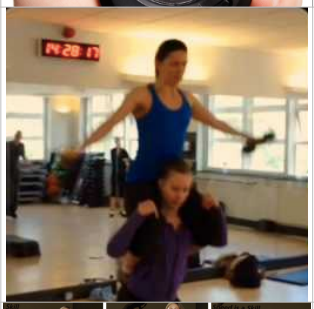
Month #4

(3 Times A Week)

Exercise	Reps/Duration	Sets	Demonstration
2 Km Run wearing backpack with camera equipment	x1	x1	
Fast Box Jumps up and down (box or stairs)	x20	x2	
Bounding Onto 3 foot high block of toes *(No heels)*	x15	x2	
On Ground Jumps Sideways (Lateral)	x15 Each	x2	
Push Ups	x20	x2	
Chin Ups	x5	x2	
Log Rolls (do not touch feet or hands)	x15 each direction	x2	
Trampoline Routine (Landed)	x10 Skills	x2 Routines	

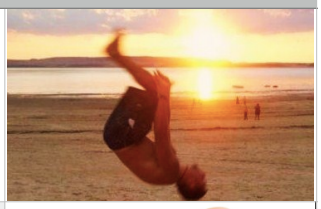
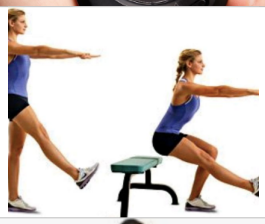
Month #5

(3 Times A Week)

Exercise	Reps/Duration	Sets	Demonstration
Interval Runs (Run 30 seconds then 1 min walk and repeat)	x5 intervals before rest	x2 (for two weeks) x3 (For next two weeks)	
Time 10 Bounces From Standing	x3	x2 Record best time at start of month and end of month. Difference?	
Partner Squats (Be careful and use a wall for support)	x15	x2	
1 Foot High Box Jumps Sideways	x15 Each Side	x2	
Push Ups	x30	x2	
Chin Ups	x10	x2	
Pommel Horse Circles (Any surface will do such as a block or bench)	x10 single circles	x2	
Routine: Back Tuck, Birani Tuck, Back Pike, Birani Pike, Back Straight, Birani Straight	x2 in a row (12 skills in total)	x2 Routines	

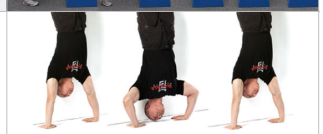
Month #6

(3 Times A Week)

Exercise	Reps/Duration	Sets	Demonstration
Standing Back Flips In A Row	x15	x2	
Time 1 Bounces From Max Height	x3	x2 Record best time at start of month and end of month. Difference?	
Single Leg Full Squats	x10	x2	
Box Jumps Forwards	10 blocks 1-2 feet high each	x2	
Raised Legs Push Ups	x25	x2	
Chin Ups	x12	x2	
V-Snaps	x40	x2	
Routine: Back Tuck, Birani Tuck, Back Pike, Birani Pike, Back Straight, Birani Straight	x2 in a row (12 skills in total)	x2 Routines	

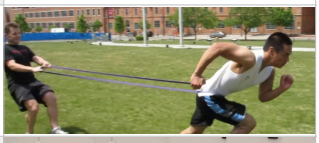
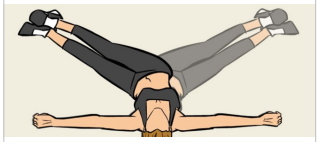
Month #7

(4 Times A Week)

Exercise	Reps/Duration	Sets	Demonstration
Max Sprints	x5 Each 15 Seconds	x2 Measure your distance at start of month and end. Difference?	
Time A Routine For Max Height	x3	x2 Record best time at start of month and end of month. Difference?	
Deep Knee Squat Jumps Onto Block	x15	x2	
4 Feet Block Jumps	10 blocks 1-2 feet high each	x2	
Handstand Push Ups On Wall	x5	x2	
Chin Ups - (Rope Climbs If Gym Available)	x 14	x2 for chin ups If doing rope climbs simply do 5 rope climbs every day	
Tight Body Lifts	x10	x2	
Routine: All Back And Stomach Landings	x10 skill routine	x3 Routines	

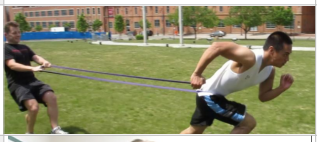
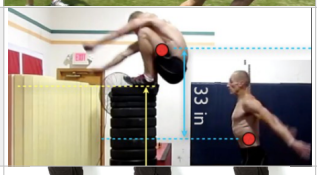
Month #8

(4 Times A Week)

Exercise	Reps/Duration	Sets	Demonstration
Wrestle With Friend (Be Safe With Supervision)	x1 minute Round	x3 Rounds	
Time Your Sprints From Point A to Point B	x3	x2 Record best time at start of month and end of month. Difference? (Make sure distance is the same)	
Band Runs (light - medium resistance from partner)	x30 seconds	x4	
5 Feet Block Jumps	x 10 in a row (bounding- no stopping)	x2	
Handstand Push Ups On Wall	x7	x2	
Hanging Bar Battles	Who Stays Up The Longest Wins	x3 Battles	
Tight Body Lifts (use a wall or sofa to help balance)	x15 Each Side	x2	
Routine: All Front Blind Landings In A Row (Front Tuck, Front Full, Double Front, Front Pike etc.	x6 skill routine	x3 Routines	

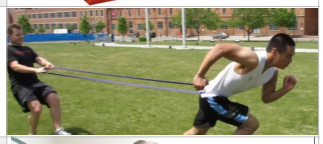
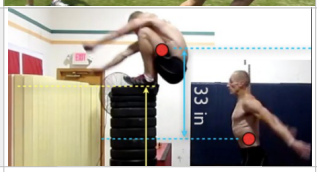
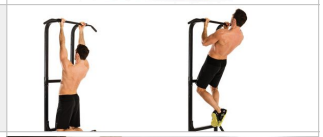
Month #9

(4 Times A Week)

Exercise	Reps/Duration	Sets	Demonstration
Interval Training	x7 Intervals (Fast Sprint/slow walk before resting)	x3 Rounds	
Time Your Sprints From Point A to Point B	x3 but with longer distance (0.5km)	x2 Record best time at start of month and end of month. Difference? (Make sure distance is the same)	
Band Runs (high resistance from partner)	x20 seconds	x5	
One Max Jump Off Toes On Spring Floor	x10	x3	
Handstand Push Ups On Wall	x10	x2	
Chin Ups	x15	x3	
V-Snaps	Max in One Minute	x3	
Routine: All Backwards Tricks From Feet To Feet	x10 skill routine	x3 Routines	

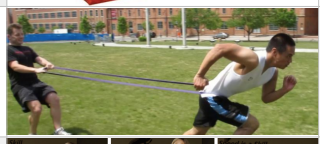
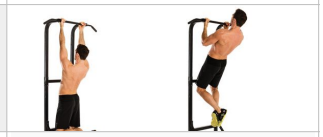
Month #10

(4 Times A Week)

Exercise	Reps/Duration	Sets	Demonstration
3 Km Run	x1	x1	
Rezi Mat Jumps In A Row	x60 Seconds	x2	
Band Runs (high resistance from partner)	x20 seconds	x5	
Bounding At Shoulder Height In A Row	x25	x3 (Only Off Toes)	
Push Ups	x40	x2	
Chin Ups With Backpack (10lbs)	x10	x3	
Torso Twists With Weight	Max in One Minute (Touch ground on each side)	x3	
Tricking Skills	x10 Swing Throughs In A Row or One After Another	x3	

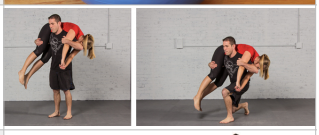
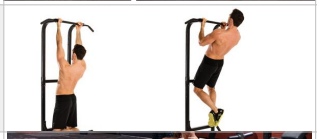
Month #11

(4 Times A Week)

Exercise	Reps/Duration	Sets	Demonstration
4 Km Run	x1	x1	
Rezi Mat Jumps In A Row	x60 Seconds	x2	
Band Runs (high resistance from partner)	x30 seconds	x7	
Lateral Bounding Side To Side On 3 Foot Block	x15	x3 (Only Off Toes)	
Inch Worms (Straight Legs)	x15	x3	
Chin Ups With Backpack (20lbs)	x10	x3	
Torso Twists With Speed	Max in One Minute (Touch Elbow To Knee Every Rep)	x3	
Create A New Exercise You Never Seen Before	x10	x3	

Month #12

(4 Times A Week)

Exercise	Reps/Duration	Sets	Demonstration
5 Km Run	x1	x1	
L-Sit Walks On Floor (Do Not Touch Feet)	x10 Meter Distance	x3	
Dips	x20	x3	
Ankle Stability Balance (Find something unstable)	x30 Seconds	x3	
Lunges With Partner	x10 Each Leg	x3	
Chin Ups With Backpack (20lbs)	x12	x3	
Core Lifts Side To Side with 10 LBS Ankle Weights	x60 Seconds	x3 Touch ground each side, but do not bounce	
Create A New Exercise You Never Seen Before	x20	x2	

Overall Conclusion:

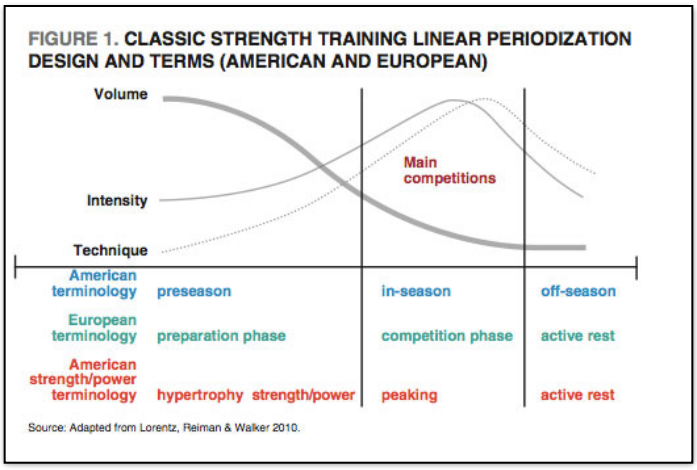
You should be able to see the pattern above. Skills are not just systematically built up by only doing an extra 5 repetitions every few weeks of the same exercise. The same muscle groups are targeted repeatedly in different ways and at a gradual increase in intensity. Many athletes will be able to progress through this program faster than one year but it should be noted everyone is different and has different priorities, so we have taken the slow approach in developing the program. Athletes should feel that they are progressing through this program smoothly. Not all exercises are easy and a few curveballs are given to the athlete which you have identified. These curveballs are put in strategically to remind the athlete that life is not as easy as just going *Step-By-Step* and at times they will need to muster up extra courage they feel is NOT predicted.

We have provided a few slots near the end of the year program that allows the athlete to create their own exercise. After a year many athletes will begin to start thinking of exercises in their heads and coaches need to allow that creativity and responsibility to be built into the program. Athletes should understand the systematic approach of this program even if the individual exercises are not all personal favourites. After this first year program athletes should be able to continue the pathway and build their own programs with minimal influence from a coach.

Athletes who are competing or starting to compete should be putting at least 3 - 4 months of this plan into effect before they compete. Build the body as you build skills and then you can start competing once you have a handle on the strength required to do the skills. Intense competitions such as Traditional Gymnastics has been shown to increase injury rates in the season due to extra pressure. For this reason make sure your body is strong before you get into competition mode.

When timing your training program with competitions simply follow this chart and reduce the intensity of your exercises so you do not “burn out” but make your training more specific. After the event get back into regular conditioning and if you have many events in a row simple keep your conditioning light and focus more on your skills but do not stop conditioning all together.

We hope this beginner guide to conditioning will guide you along the path to starting to strengthen your body to be able to handle the inevitable trial and error process. Injuries will occur no matter who you are or how talented you are, so strengthen your body to reduce the damages that are unavoidable.



FOR MORE SPECIFIC TRAINING CONCEPTS OR PERSONALIZED PROGRAMS FOR YOU OR YOUR ATHLETES PLEASE CONTACT THE FTA.