

FUNCTIONAL

S P O R T S T R A I N I N G

FST GENERAL PROGRAM

The Manual

DISCLAIMER

Before you start this exercise program or make any changes in your lifestyle and diet you must get your doctor or physician's approval. This product is for informational purposes only and is not meant as medical advice, nor is it a substitute for medical advice. This program is designed for fit and healthy individuals only.

Performing exercise of all types can pose a risk to the exerciser. We advise that you should take full responsibility for your own health and safety. Before exercising make certain your equipment is in good condition and be sure to know your own physical limits. Adequate warm up and cool downs should be undertaken before and after any exercise.

Do not perform any of the exercises in this program until you have been shown proper technique by a qualified fitness professional. If you experience any pain, discomfort, dizziness or you become short of breath, stop exercising immediately and consult your doctor/physician.

Please understand that **you** are solely responsible for the way information on **Functional Sports Training website and product** is perceived and utilized and you do so at your own risk.

The Functional Sports Training Manual

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1 Introduction

There are many fitness trainers providing special programs to get a leaner body, loose weight, gain weight, jump higher, get more fit...you name it. Not all of them are backed by professional athletes, doctors and everyday people. We are not only training others but we are also training ourselves. Functional Sports Training is the way we train since years because it's not only the most diverting way to work out but we also discovered it to be the most effective one. Everyone who has tried Functional Sports Training, weather the ones of our group training classes or friends joining our workout got hooked by it...That's why we decided to share it with others.

A lot of people work out at the gym with weight machines or on the cross trainers. Training as professional athletes, who want to be fit and step it up in their sport, and through our educations we know that these traditional exercise routines do not give us an ideal workout. That is why we focus on functional fitness exercises because it's about training our body to handle real-life situations.

We have created our own program with the best components we could find for our interests. We did not invent each component of our training but rather our Functional Sports Trainings' products are the result of an ongoing search for the best training elements and exercises. Through our obsession for sports and practicality we make it possible to work out just about anywhere, for any sport.

This training is the best for functional training. We bring it all together in a holistic, rounded and easy to use training regimen. We are positive that our methods are suitable for anyone who is motivated to train. Our methods will help you to step up your performance in your sport. You'll get stronger. You'll have fewer injuries. You'll lose weight, look better and become the healthiest and fittest you can be!

2 Start straight away

If you are on to start right now, that's the straightforward way:

1. Watch the video of the first training unit and to have a look at the pdf-printout for your first FST training session.
2. Arrange your circuit, with all the mentioned training equipment you need.
3. Download our interval-timed music if you wish, or use your own sound (best to use an interval timer app with it (e.g. Runtastic Timer (free), or Tabata Pro)
4. Warm up for 5 to 10 minutes and start your training. Do at least three laps of the circuit. You will need about 50 minutes to one hour.

If you want to know more about how our FST circuits are organized continue reading:

2.1 FST Circuit Training

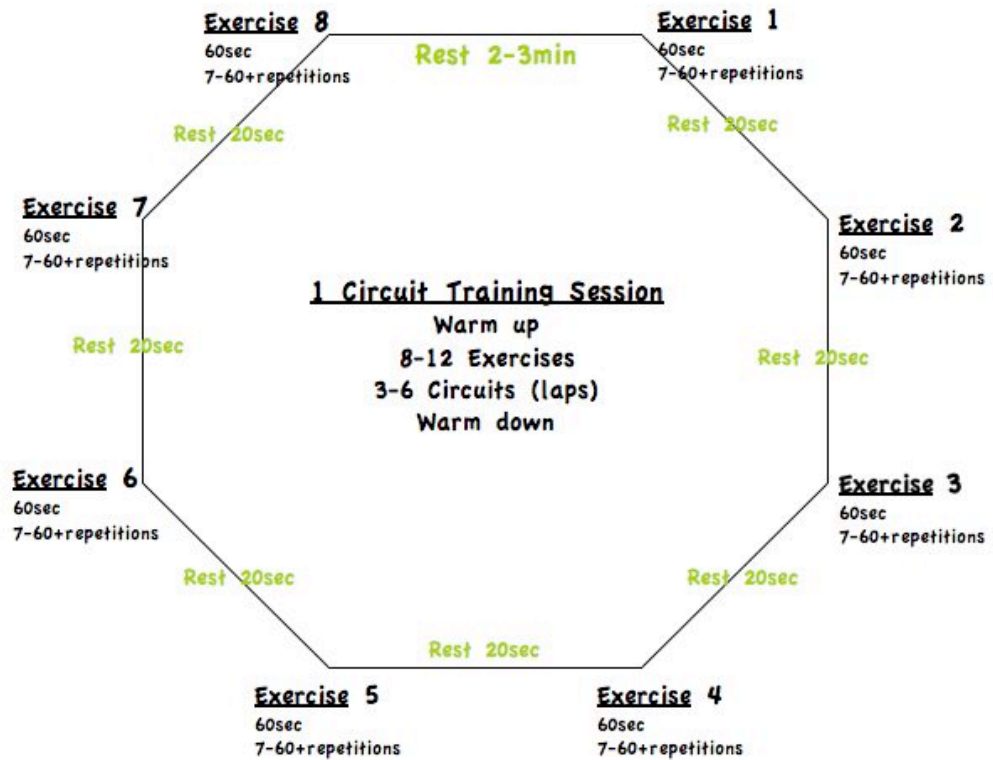
The general rule is that you should include **2 to 4 circuit sessions** in your weekly routine. In this 6-week program we recommend to do 4 circuit sessions a week to get the best result but it is up to you to customize the training. If you cannot train 4 days a week complete the first two days of the training minimum. Day 3 and 4 will be repetitions of day 1 and 2 to make it easier for you to get into the routine and repeat the exercises. Day 1 and day 2 will have new exercises each week.

If you do 3 circuit sessions a week you should prolong the 6-week plan to 8 weeks. If you do it 2 times a week you can even extend the plan to 12 weeks. However, stick to the order, as exercises will get more difficult throughout the weeks.

2.1.1 How Is FST Training Session Organized?

A circuit session consists of a series of 8-12 exercises or stations performed in succession with minimal rest intervals in between. Each exercise is performed for a **specified number of repetitions** (7-60; the individual detailed exercise description will tell you exactly how many repetitions you have to do) in a **preset time period** (60s) before moving on to the next exercise. The exercises within each circuit are separated by brief, **timed rest intervals** (20s), and each circuit is separated by a longer rest period (2-3min). We recommend doing 3-6 circuits per training session to do at least 3 sets of every exercise. For all the exercises that train the strength of only one extremity you have to automatically add one more station to work out the second extremity (that will be indicated in your weekly scheme, i.e. Exercise 1+2 means working out right and left individually), that's why your circuit can vary between 8-12 stations.

Here is an example for a FST Circuit training session:



Here a summary of the circuit organization:

Number of exercises	8
Time per station	60 seconds
Repetitions of an exercise wanted in that time	7-60 (depending on the type of exercise, see individual exercise description) (7-15 for strength exercises)
Speed of execution	Strength exercises slow to medium /cardio fast (see individual exercise description)
Rest interval between stations	20 seconds
Rest interval between circuits	2-3 minutes
Circuits	3 to 6
Frequency	2 to 4 times a week

2.1.2 What exercises does one circuit consist of?

For a balanced workout we pick 2 exercises from each of the following four categories. When planning the training session we are always focusing on working different functional muscle chains of each category. The order we give you for the (strength) exercises is important because you shouldn't work out the same muscle groups without having a resting time of at least 2 minutes.

Here are the *four main categories* of the circuit program. Most of the exercises could fit into several categories however they are found in the group were the fit best.

1. **Upper body:** These exercises are mostly challenging your arms, chest, shoulders and back.
2. **Lower body:** These exercises are mostly training your bottom, thighs, calves and feet.
3. **Core stability:** Core stability exercises are not only addressed to your good looking abdominal muscles but also to all your mini spine stabilization muscles, which are essential for you back health and peak performance in any sport.
4. **High performance:** This is a mix of exercises originating from different groups that they need an extra bit of focus. Parts of this group are high intensity cardio exercises, strength endurance exercises, and short endurance exercises with some of them having a coordinative challenge built in. Get yourself prepared to jump, breath strongly, and a get your heart beating fast.

2.1.3 Time intervals and counting repetitions

For some exercises time intervals work better, for some counting the repetitions does. We recommend a mix of both, meaning that we are using time intervals but also keep an eye on the number of repetitions we do, especially when we do strength exercises. The great thing about time intervals, especially combined with music is that they are very motivating to work out a little harder. The music can push us harder. Also we train more effectively because we do not lose time in between the exercises. You know in advance how long your training is going to take and what you will do in that time.

By using the time interval basically the goal is to do as many repetitions as possible in the given time. That totally works for what we call the **high performance exercises**: high intensity cardio exercises, strength endurance exercises, short endurance exercises. If you still have power to keep going over the time interval you just increase the frequency! If you're performing too fast you will see how long 60 seconds can be!

At most of the **core stability exercises** you will also try to keep on working for the whole minute but you do not have to count your repetitions. However, for most of them the performance speed will be slow to medium, with extra focus on the form. Remember setting your ends when you can no longer perform the exercise with perfect form.

When you do **strength exercises** (= most of the upper body and lower body exercises), you do them slow to medium speed, very focused on the form. Here we want you to count the number of repetitions you do because we want to make sure you are training with the **right intensity level** meaning with the right weight or difficulty level. For that you have to choose the weight that enables you to do **between 7 and 15 repetitions** in 60 seconds. That means that the weight should be heavy enough that your muscle or muscle group you are working with is not able to do one more repetition in correct form after the last repetition of that set.

It is important to stay in this optimum range to get the most out of it and to gain strength via muscle hypertrophy (muscle growing). This is the basic strength that sets your limit for all other more special strength qualities like maximum strength, speed, and strength endurance. If you are done with your repetitions before the 60 seconds are over meaning that you pumped your muscle empty and cannot do another repetition you are done with this station and can take the little extra rest to get ready for the next station. If the minute is done and you can still keep on going you have to increase the weight or difficulty level of the exercise!

You need weights (dumbbells at least) for some exercises if you want to get stronger – there is no way around it. In each exercise description you will find individual instructions on how to perform it, and everything important to know.

2.1.4 Warming Up / Warming Down

Warming Up:

Never forget to warm up before starting training or any sport you do! It's important to prepare not only your joints and muscles in order to prevent injuries, but also to make your circulatory system ready for the physical load. Warming up can also improve the subsequent performance and brings you in the right mindset for training or competition.

The goal when warming up is to increase muscle temperature, core temperature, blood flow, and also to disrupt transient connective tissue bonds.

All this has a lot of positive impacts on your performance, here we picked out a few to give you an idea:

- Faster muscle contraction and relaxation
- Improvement in muscle strength and power
- Improvement of force development and reaction time
- Increased blood flow to active muscles
- Enhanced metabolic reactions

Your warm up should last for 5 (absolute minimum) to 15 minutes, depending on what you were doing before (sitting in the office the whole day or just back from a 20 min run... you get the idea!).

You will also find a short warm-up video in the program. However, warming up is a very individual procedure so it's good if you make up your own warming up program in future.

Cool Down:

After high-intensity exercises you should always cool down to reduce the possibility of muscle soreness the next day. Therefore you should take another 5-

10 extra minutes after training to do some low intensity jogging, biking or fast walking afterwards. You can also use a bicycle ergometer, cross trainer or the like. Also you are welcome to do the light Yoga stretch session as long as your muscles are still warm.

2.1.5 How much time do I need for a FST Circuit Session?

If you do three circuits you will need about 50 minutes to one hour including warming up and cooling down. If you add more circuits to your session you have to add 15 minutes per circuit.

Depending on your training location you will also need some time to arrange the circuit, but with our laid out training plans it will only take you a few minutes.

3 Make a whole program out of it!

The FST General Program consists of:

- 2-4x / week **FST Circuit Sessions: each about 1h**
- 1-2x / week **General Endurance Training Sessions: each 40-60min**
- 1x / week **FST Yoga Stretch Session: about 45 min**

3.1 FST Circuit Session (as described in 2.1)

3.2 General Endurance Training Sessions

These sessions could be running, biking, swimming etc., or any other sport performed with the right intensity for the right amount of time. Again, the intensity should be 70% of your capacity. To get to this point we should work hard while still being able to talk with a partner as we push ourselves. The other method of maintaining our intensity is monitoring our heart rate as explained in section 5.2

We recommend you work on your endurance for at least 1.5 hours weekly if you want to improve. If you do any other sport at 70% capacity for a duration of at least 10 minutes, you can subtract this performance time from the required 1.5 hours.

3.3 Yoga Stretch Session

The **Yoga Session** is a 60 min stretching session that is best completed on your recovery or endurance day. Remember to warm up for 5 to 10 min to increase your muscle temperature before starting.

3.4 Customize Your Training Frequency:

- If the FST is your **only workout program**:
 - You should try to do 4 circuits a week.
 - We recommend taking an extra step and including 2 hours of endurance training each week to your lifestyle. (jogging, biking, bike ergometer, cross trainer...)
 - We would recommend you to do the circuit training Monday and Tuesday. Wednesday you go for a 40-60min run and then again you do circuit training on Thursday and Friday. Use the weekend for a sports activity or another endurance unit like a 40-60 minutes run.
 - The Yoga stretch session you can either do after your endurance unit or on your day off (don't forget to warm up before).
 - See your week planer (link) for a clearer view.

- If the FST is an **additional tool** to your outdoor activity / other sports you do:
 - If you only have time for your sport on weekends, we suggest you include two to four training sessions during the week. We would recommend Monday and Tuesday circuit training, Wednesday a 40-60 min endurance session, then again circuit training on Thursday and

Friday. Weekends you want to do your sport or do another endurance session. If you do a lot of sport over the whole weekend you might consider to skip Friday training and rest to be fit for the weekend!

- If you do your sport activity more often during the week, you have to customize your training. Depending on the intensity and fitness quality of the sport you do you can reduce the circuit training down to 2 circuit units per week and also add up the endurance units if your sport fulfills the right criteria. Again, those endurance criteria would be to run, bike, swim or the like with 70% of your capacity as discussed in section 4.
- Consider also taking a day of rest after days of hard training and enjoy the time to regenerate in order to performance better and raise your fitness level.
- The Yoga stretch session you can either do after your endurance unit or on your day off (don't forget to warm up before).
- See your week planer (link) for a clearer view.

It is always very important to listen to your body! When you feel really weak or have any pain from too much training or doing a lot of sports the previous days you should:

- change some of the exercises for easier variations
- decrease your intensity level
- or even skip a day of training

We don't want to tell you to skip your training because you come home tired after work! You'll feel better after the warm up because it wakes up your body and gets some oxygen flowing through your lungs and to your brain.

4 Getting Started

4.1 What equipment do I need?

- **Shoes:** Depending on the location you can either train barefoot or use sport shoes.
- **Music and sound system:** We recommend you use music when training! Choose fast motivating rhythms, nothing with a slow tempo as it may slow you down.

Music is also the best tool when working with the time interval method. You can edit your music so that the sound is on for the required circuit interval time and off during your pauses.

If you train with other people you might want to use any kind of sound system, if you train alone you can use your mp3-player.

We offer you a download of edited 60/20 interval music we are using, to start straight away.

There are some apps available on iTunes to set your intervals. The best we found when writing this document was one called "Tabata Pro".

According to an Ohio State University study, people did twice as well on cognitive tests after exercising while listening to music compared to a group training in silence. It seems that training with music not only makes you fitter but also smarter!

- **Watch:** If you don't want to train with music you will have to use a watch for measuring the intervals. It's good to have a watch you can program to give you an alarm for the loading time and rest time so you don't have to check your watch all the time while doing exercises or while resting. There are a few interval watches on the market.

There are also apps available on iTunes to set time interval alarms.

- **Training equipment:**

Here is the list of equipment you will need **for the 6 weeks BEGINNER training** in order by weeks.

Week 1: yoga mat, dumbbells, gym ball, stair (or box), chair, mattress (optional)

Week 2: yoga mat, dumbbells, gym ball, stair (or box), skipping rope, aircushion (or Indo board or any other balance device), mattress (optional)

Week 3: yoga mat, dumbbells, gym ball, aircushion (or any other balance device), stair (or box), Indo board, mattress

Week 4: yoga mat, dumbbells, gym ball, stair, box, skipping rope, chair, indo board, mattress (optional)

Week 5: yoga mat, dumbbells, gym ball, sling, stair (or box), mattress, balancing device (optional)

Week 6: yoga mat, dumbbells, Indo board, sling, chair (or bench), gym ball, box, balancing device, mattress

Here is the list of equipment you will need **for the 6 weeks ADVANCED training** in order by weeks.

Week 1: yoga mat, dumbbells, chair/bench, gym ball, skipping rope, balance cushion, mattress (optional)

Week 2: yoga mat, dumbbells (barbell optional), gym ball, Indo board, box (or a stair), sling, mattress

Week 3: yoga mat, dumbbells (barbell optional), gym ball, sling, box, mattress, towel, Indo board, aircushion (optional), chin up bar

Week 4: yoga mat, dumbbells (barbell optional), gym ball, aircushion, Indo board, box (or a stair), sling, skipping rope, mattress

Week 5: yoga mat, dumbbells (barbell optional), chair (or bench), Indo board, sling, gym ball, box (or a stair), mattress, balancing device (optional)

Week 6: yoga mat, dumbbells, gym ball, aircushion, Indo board, sling, skipping rope, box (or a stair), mattress, cushions

If you want to know how to build your own gym or specific descriptions of the equipment we use, have a look at the equipment (link) section on our site.

4.2 Where Do I Train?

The cool thing about FST is that you can train pretty much everywhere. Sure, it is nice to have some space but if you don't have more than a one-bedroom apartment available don't worry, you still have enough space.

Here are some locations we've done the FST Circuit at:

- Good weather locations:
 - o Garden
 - o Beach
 - o Park
 - o Woods
 - o Out on the street
 - o Parking lot
- Bad weather locations:
 - o Living room
 - o Garage
 - o Gym of a school
 - o Fitness center
 - o Office room

And many more, get creative! You can do this training anywhere you choose, so pack up what little equipment you need and pick an amazing new place to work out each day!

4.3 Checklist Before You Start

Physician's Approval: If you aren't regularly involved in sport, you should definitely go to see your physician and get an approval for starting conditioning training.

Know the Basic Movements: To start with the FST program you should be able to perform the basic movements with the correct form. This is really important because a lot of strength exercises are based on the basic movements like a squat, a plank position, a push up and a squat lunge.

The correct form is both necessary for the best training results and to prevent injuring yourself. So before you start your first training session take the time to check the basic movements, try them out, maybe check back with your training partner(s) or watch yourself in a mirror when doing them to start.

A lot of exercises are variations of the basic movements and you have to consider the same points when doing those. We will point out mistakes commonly made that can easily be avoided. That is essential for an effective and healthy training!

Otherwise you risk ending up in pain from performing improper movements over and over.

5 Deeper look inside

For the once who want to know more, some theory explained about the three main elements of the FST General Program:

1. **The FST Circuit**
2. **The General Aerobic Endurance Training**
3. **The Yoga Stretch Session**

5.1 The FST Circuit

The core element of the FST General Program is the **FST Circuit**, which is based on a **circuit-training model**.

A Circuit training session consists of a series of 8-12 exercises or stations performed in succession with minimal rest in between (more on the organization of a circuit session under 5.1.1).

The circuit-training model is a traditional form of training and proves to be the best organization form for our training. It allows us to train most of the fundamental fitness qualities like strength, endurance, speed and coordination leading to functional fitness. Through its **versatile use** it is possible to train for all kinds of sport and at all different athletic levels.

Since you will be moving between different stations you don't need to rest between sets. This keeps the overall intensity at a high level and saves time!

This training program is effective for both amateur and professional athletes.

Our program allows multiple people to **work out together** with different intensities and the same setup. We'll show you how little space you really need and you will be able to work out pretty much anywhere.

As previously stated, we are using the circuit as our organization form for **functional training**. Functional training has its origin in rehabilitation where physical therapists use it to build up functional strength after an injury or any other sort of malfunction.

The use of sport specific training was long reserved for professional athletes especially in sports, which demand a higher level of coordinative skills. That probably happened because physical therapists were working with athletes and also their trainers to get the athletes back to the top as fast as possible after injuries or episodes of pain.

There are different benefits to functional training: beside better muscular balance and joint stability it will aid in **preventing injuries** sustained in an individual's sport.

The explanation for that is very simple: the focus when training is on the functionality of each exercise. This means paying attention to the body's natural ability to move in six degrees of freedom!

In contrast machines restrict movements to a single plane of motion, which is clearly unnatural for the body and doesn't exist in real life or sports!

In addition to the already discussed benefits, the results of a study comparing functional strength training to fixed variable training techniques is very enlightening: Functional users had a 58% greater increase in strength over the fixed-form group. Their improvements in balance were 196% higher and reported an overall decrease in joint pain by 30% (Spennewyn 2008), which is significant.

What does that all mean?

We are training our body through real motions. We are always working with several joints. Also we are adding as much of the **balance factor** as possible to the exercises to keep the exercises challenging and we work on your coordinative skills. Training our coordination is the secret to being able to react appropriately to different situations or changing conditions!

Let me give you an example:

My main sport is snowboarding, so when I rode down a steep slope with good speed during a freeride competition last winter, all of a sudden the snow conditions were changing from perfect soft powder snow to hard packed snow. It's like running down the road and all of a sudden you step on ice without seeing it. My body, especially my legs and my core only had a part of a second to react to these new conditions.

Muscle strength alone wouldn't help me in that case because for mastering this situation without a crash your body is dependent on the **intramuscular coordination**. This means the ability of many tiny muscle groups to work simultaneously to move in the best possible ways to deal with the situation. For that they have to work together in the fastest most efficient, most coordinated way.

For the training of your coordinative skills we will be constantly changing exercises and adding new ones, with new balance devices that will keep the training challenging. The results will be that you will find it easier to learn new sports and new moves.

Another big gain when implementing the balance factor to your training is **efficiency**. By teaching your system to coordinate your muscle groups you are able to economize different motions, so that you will be able to save energy allowing for increased performance!

The FST Circuit per se is a complete training program and many sporty people are happy with doing the circuit training even while doing their sport.

Mountain bikers, for example, peddling up some mountains to downhill single track trails are constantly training their basic endurance. So the FST Circuit combined with their sport is a great package offering them all they need!

5.2 General Aerobic Endurance Training

Every athlete needs a basic level of cardiovascular endurance. This can be achieved by using a wide variety of aerobic sport or training programs. Because we are already including several higher intensity intervals with our high performance exercises in our FST Circuit we found that the best options for general aerobic endurance training is what is called the LSD (long slow distance training).

This could be running, biking, swimming or also any other sport that you do with appropriate intensity for the appropriate amount of time. This is not the part of training where we push intensity to the max, in contrast to the FST Circuit!

With the general endurance training we want to work on our **aerobic capacity**, which is the maximum rate at which an athlete can produce energy through oxidation of such energy resources as fats, carbohydrates and proteins. It is usually expressed as the volume of oxygen consumed, per kg of body weight, per minute.

The better your muscles are trained the more oxygen your muscles burn, resulting in higher aerobic capacity. We are training in a range at about 70% capacity constantly for 30 to 120 minutes, at least two times a week.

So we are training in a primary fat burning range due to the intensity we are using. Overall we do at least one and a half hours of LSD training per week to improve our endurance base. (Endurance athletes do up to 15 hours a week but as we are not training to win a marathon we don't have to do that much!)

The physiological benefits of this training include: enhanced cardiovascular and thermoregulatory function, improved mitochondrial energy production and oxidative capacity of skeletal muscle, and increased utilization of fat as a fuel. These changes are likely to improve the Lactate Threshold Intensity by enhancing the body's ability to clear lactate (Baechle and Earle 2011).

If you do other sports on the side you can add them up to your weekly endurance training as long as you had the right intensity level for at least 10 minutes and were working at least one of your major muscle groups like running, swimming or biking do.

When you do short sessions remember that you need a few minutes to get to the right intensity level so give yourself a few minutes to establish a stable intensity.

Why do we want you to work on your endurance for at least 1,5 hours/week? *An average person in a standard sitting professional occupation needs a 40-60min aerobic workout per week to keep an average endurance level, and not get weaker (Haber 2009)!* If you want to improve your fitness level you will have to do it at least for 1.5 additional hours/ week.

To get an idea of your intensity level's capacity the easiest way is to run or bike as fast as you can while talking to someone. Be sure you don't get out of breath and that you bike or run as fast as you can without doing so. We want to run our system on a metabolism with plenty of oxygen for best training results.

For a gauge of our maximum intensity level it is more reliable that we measure our heart rate (HR) for this training. Count your heartbeats per minute. Count for 20

seconds then multiply by three. Feel for your heart rate around your carotid artery in your neck or purchase a device that measures your HR electronically.

To get the optimal heart rate for an endurance workout you have to do the following:

Take your **resting heart rate (HRr)** after lying down for 5 minutes. You can also do it in the morning before getting up.

Get your **maximum heart rate (HRmax)**. You can do that by using the formula (Hollmann and Rost): $220 - \text{age} = \text{HRmax}$; the HRm is mostly dependent on your age, not on your training etc. nevertheless it is an arithmetic average.

Get your **optimal training heart rate (HRtrain)**, with the formula (Karvonen and Kentala): $\text{HRtrain} = \text{HRr} + (\text{HRmax} - \text{HRr}) \times 0.7$

Little example on myself: $\text{HRr} = 45$; $\text{HRm} = 220 - 36 = 184$; $\text{HRtrain} = 45 + (184 - 45) \times 0.7 = 45 + 139 \times 0.7 = 142$

When running, stop halfway to check your heart rate. In time you will develop a feeling for it and will likely find it very practical and easy to use a pulse watch with a belt around your chest. Try to ensure your heart rate is as close to HRtrain as possible.

If your requirement to optimize your endurance workout is high, and you want to get your exact personal figures the next step would be to have an Ergometry or Spirometry done, which gives exact figures about how your metabolism is working at different intensity levels. You can do this by organizing an appointment with nearly any Sports Physician.

5.3 Yoga Stretch Session:

Flexibility or range of motion is important to athletes. One of the basic fitness qualities is flexibility or range of motion. It is the degree of movement that occurs at a joint and is determined by a number of factors including connective tissue structure, activity level, age and sex. It is also specific to each joint's anatomy and the required movements at that joint. It is therefore important to keep requirements of each sport in mind when assessing the range of motion.

It is likely that optimal levels of flexibility exist for each activity (sport) and risk of injury may be increased when an athlete is outside of this range. It is important to note though that both inflexibility and hyper-flexibility can result in higher risk of injury (*Baechle and Earle 2011*).

Stretching is very dependent on personal needs. With our friend, surfer, and Yoga teacher, Marine Larripa we created a special Yoga Stretch Session taking care of all the major muscle groups.

Before the extra session you need to first warm up to get your muscles to the optimal temperature for stretching. This is best done on a recovery day after hard training or playing hard at your sport!

We think that Yoga is the best form to stretch not only because it is an active way to stretch and a good way to relax but also it is great to increase your own self-awareness.

This better perception of your body will help you to perform the FST Circuit exercises in the correct way, and will help you improve your posture in sport and alignment throughout your daily life. Yoga is also the perfect way to calm your mind and relax after a stressful day.

6 Nutrition

We are not nutrition experts but rather we have a zest to live and eat healthy. We will explain how we eat and we'll present other interesting information about losing weight and dieting we found through research.

We won't give advice on a professional athlete's nutrition because the ideal diet for an athlete depends on many factors (age, body size, sex, genetics, and environmental training conditions, as well as on duration, frequency, and intensity of training).

In other words the ideal diet for a professional athlete is individualized. If you are a professional athlete it is worth visiting a professional nutritionist, as proper nutrition is an important consideration for athletes who want to maximize their performance.

There are all kinds of diets out there; some people eat a lot of fruit, while others don't eat carbohydrates and proteins at the same time.

We believe in order to eat well you don't have to be that extreme. Using your common sense of what is good for you and what isn't is often enough to trim ourselves down and maintain a great fitness level.

What we do:

- We buy only fresh ingredients and no ready-to-eat-meals (you never really know what is in there)
- We cook ourselves with fresh ingredients using a lot of veggies
- We almost never go to any fast food restaurant
- We drink water – fruit juices very rarely and no sodas at all (we also have a beer or a glass of wine from time to time)
- When possible we always buy organic food
- When we eat meat (once or twice a week), we prepare it using olive oil (grilled or baked is best!)
- We mainly eat whole grain bread or muesli
- Bibi would not like to live without chocolate – however she doesn't eat the whole package at once. And we mainly eat dark chocolate.
- We eat sinful food from time to time but it's not our every day habit!

If you **want to lose weight**, doing the math, it is really quite easy: your intake should be lower than the amount of calories your body needs in a day (i.e. a negative caloric balance).

In Short: put less in your mouth than your body needs!

To achieve long term success you have to learn new behaviors concerning eating habits but also movement habits (it's been said that it takes about 6 – 9 months to turn efforts into real habits).

A one-time, two week hardcore diet won't do it! All fast weight loss diets make you lose more water and muscle than fat!

Medical experts say if you plan to lose weight on a long-term scale you should not plan to lose more than 1kg (around 2 pounds) of fat a month. That means you have to reach a deficit of 300 kcal per day.

Let's take the example of a woman who weighs 60 kg (around 130 pounds) who works in an office and doesn't do any sport activity in her free time. She does not need more than 1.800 kcal a day. If she wants to lose 1kg of fat a month she should not intake more than 1.500 kcal a day.

If she would exercise or play sports she could eat the same (1.800 kcal a day) but would still lose fat (she might not lose weight because she would build up muscles and look better).

You don't have to count calories for losing weight, but consider the following points:

1. Eating habits:

- Eat slowly: chew every bite 30 – 40 times (you will be full sooner)
- Choose the right food: Reduce your consumption of fat. That means go without fast food, desserts, sauces, sausages and so on.
- Cook yourself using fresh ingredients and little fat. So you always know you aren't consuming hidden fat.
- Replace all your fruit juice and soda consumption with water. An example: one half of a liter of soda, or fruit juice a day is 300 kcal, which will be 1kg of fat by the end of the month.

2. Movement habits:

- Movements in form of working out and every day life movements will support building up a caloric deficit.
- If you train you will build up more muscle. Every kilogram of muscle mass automatically needs more calories a day (15 kcal per kg muscle per day) – even if you don't train. That would be 5.500 kcal per kilogram of muscle per year.
- Not only strength training, but also endurance training will help you to burn more calories. For example if you would go jogging two times a week for an hour you would lose 10 kg of fat a year. The only condition is that you don't eat more because you go jogging (you don't have to eat less either).
- Concerning your every day life, take the stairs instead of the elevator or walk back after work if possible instead of taking the car. That will also add up by the end of the month.
- When you want to lose weight, remember that when working out you should not automatically eat more. It doesn't mean either that you can drink four beers after your training session. Always remember to question yourself: "What is my intake and how much does my body need a day?" Pretty easy!

On www.choosemyplate.gov (brought to you by the United States Department of Agriculture) you find very good information about what a healthy and balanced nutrition consists of.

There you can also find interactive tools to calculate your individual caloric need based on your sex, age, and activity level to get an idea how much food your body needs a day.

If you are one of the lucky ones who are happy with their weight, it is worth having a look at this site. It will help you ensure that you have a balanced nutrition and that you are getting all the vitamins and minerals your body needs. You do not need to buy vitamin or mineral pills if eating enough vegetables and fruits and have variety in your diet.

For everyone with an average Body Mass Index (BMI), it's important that we are not fat phobic. For example, vitamins A, D, E, and K are fat-soluble and can only be absorbed when fat is present in our diet. Don't ban fat from your diet as this might lead to nutritional deficiencies, which harms performance and health!

If you want to build up muscle make sure you eat enough proteins to maximize the hypertrophic stimulus. Proteins from animal origins have a higher biological value (meat, fish, poultry, dairy products, and eggs) than those of plant origins (soy, rice, cereals, potatoes and pulses). The higher the biological value of the protein, the less protein required.

A mixed diet is the best source of high-quality protein (plant and animal based protein). Strict vegetarians must plan their diet carefully to ensure an adequate intake of all essential amino acids.

Don't forget to drink enough water when training. You will need one extra liter for every hour you train. If it's hot you will need more water as you could lose a lot of water during your workout.

7 The Training and Its Goal

In **the FST General Program** we lay out a special training plan for you that will raise your fitness level through challenging your body in different ways. Our focus is always to gain functional fitness, the kind of fitness you will be able to use in daily life and sport.

We focus on working out functional chained muscle groups. We add challenging components into the exercises by including a balance factor to create complex movements in forming functional and fun exercises. You will not only look stronger but **you will be able to take your workout with you wherever you go.**

If you are serious about training and want it to be a part of your lifestyle it is important to follow a training plan. The FST General Program lays out this plan in easy to read .PDF files, pictures and videos.

Starting from the beginning, we guide you step by step to your next fitness level. We will start with some standard exercises with special emphasis on the correct form of the basic movements. These are really important because they are the basic skills we need to build up our training during the coming weeks.

The goal of these 6-week programs is to gain functional fitness by training the fundamental fitness qualities like strength, endurance, coordination, speed¹, and flexibility. The positive cosmetic 'side effects' should include a great slimmer look, a ripped body, washboard abs, tight buttocks, and the list goes on.

But there is more than just good looks in it for you. Through performing functional exercises the right way, and through improving your balance, you will be able to integrate newly gained functional movements into your daily routine and begin to use healthy movement patterns. Remember that functional training in the right form is the key to prevent injuries and pain!

When the muscles in your back are stronger you are less likely to hurt yourself through such activities as lifting your baby or carrying groceries. It's less likely that you will throw out your back when your legs and your core are stronger.

Newly learned complex movements will be engraved in your brain (If you once learned how to ride a bike you will know forever, right?) and training and sports will be easier.

After the six weeks, and all throughout, you will be able to see progress through an increase in your functional power, and your strength and you will improve your coordination and your overall fitness.

Some moves or situations you were struggling with in your sport will all of a sudden feel easy to do, and you will feel stronger and more confident in your every day life. Be conscious of the changes in your abilities before, during and after the 6-week program. Recognizing these changes can bring us a newly found passion for training and your sport.

¹ Speed is best to be trained sport specific; we will provide different exercise for that in our Exercise Encyclopedia.

7.1 Moving On After 6 Weeks

Whether you went through the 6-week beginner, or the 6-week advanced program, to maintain your new strength you will have to continue to do at least one to two training sessions per week.

Unfortunately the human body starts to deteriorate when we don't use it. In other words if you don't use it you lose it. We strongly encourage you to keep training after you've completed the 6-week program.

If you started with the **FST General Program for Beginners**, you can move on to the Advanced Program.

If you have completed **FST General Program for Advanced** you have different possibilities for continuing training.

You can keep on working out after the 6-week advanced plan and just step up exercise difficulty or you could also **take the outline** of the 6 weeks program and exchange one or two exercises. You find a lot of interesting exercises online you might want to try.

We are also offering sport specific programs. This will help you maintain variation and will add new challenges in your training, which is important to keep your motivation and to continue progressing!

8 Last Bit of Motivation!

It may be a lot of information but the program is actually simple. We have prepared 6-week programs for you which you can easily follow each week. Exercises are explained in text photos and video.

The only thing you have to bring along is the motivation to train!

Sport and training is not our work but our passion! Come experience the progression! Train with us!



Bibi Toelderer-Pekarek



Mitch Toelderer