

COMPEX® 



***HOW TO IMPROVE YOUR WOD
WITH COMPEX***

FUNCTIONAL TRAINING AND MUSCLE STIM

INTRODUCTION

FUNCTIONAL TRAINING COMBINES GYMNASTICS, WEIGHTS AND ENDURANCE SPORTS.

Functional training athletes have to be proficient in a huge variety of disciplines. They run, row, climb rope, jump, move objects and practice Olympic weightlifting movements using dumbbells, gymnastic rings, boxes, kettlebells, bags and other items which serve as training aids.

Functional training focuses on the development of ten athletic skills: cardiovascular and respiratory endurance, muscular endurance, strength, flexibility, power, speed, agility, psychomotor, balance and accuracy. The aim is to develop the capacity to train with greater intensity for extended periods, utilising a variety of muscle groups.

The WOD (Workout of the Day) is built around three principles. Firstly, the movements are functional, or in other words, natural and easily transferable to everyday life: pushing, pulling, jumping, running or lifting a heavy object.

Secondly, the training is constantly varied. Rather than allowing the body to sink into a familiar routine or rhythm, and thus lessening the benefit received from the workout, functional training means you never know what to expect; training might include circuits one day (a sequence of exercises in a given time or for a set number of repetitions) and a singular activity the next: running or pure strength (such as deadlifting, back squat or shoulder pressing).

Finally, training is always at high intensity; flirt with your own limitations: run as fast as possible, raise the bar with more weight, push yourself.





COMPEX CAN BE THE IDEAL
PARTNER TO HELP YOU WARM UP
THE MUSCLES, PREVENT INJURIES,
DEVELOP STRENGTH, RECOVER
BETTER AND FASTER.

1. PHYSICAL TRAINING

AUGMENT YOUR STRENGTH AND ENDURANCE TRAINING WITH COMPEX

PROGRAMS FOR STRENGTH

HOW DOES IT WORK? WHY COMPEX WILL ALLOW YOU TO RECRUIT MORE MUSCLES.

The practice of functional training requires you to develop significant strength levels, but also the ability to maintain this high level of strength over a long period of time. Physical preparation for this type of training must first focus on increasing maximum strength, and secondly, on enabling the muscles to repeat powerful contractions for the duration of the training period, without tiring.

The Compex STRENGTH program engages the quick muscle fibers (type IIb) which develop high levels of strength. The contractions induced by the stimulation are extremely powerful but short, with long intervals between them. Increasing the intensity of the electrical pulses throughout a session recruits a higher percentage of muscle fibers (sometimes more than are willing!).

The RESISTANCE program focuses on different muscle groups and consists of less powerful contractions which can last for several seconds and are separated by short periods of respite. This is a demanding workout used to push muscles to fatigue and thus improve their ability to perform exercises at high intensity for longer.



GENERAL RULES: HOW TO USE

- The recommended preparation duration is 2 CYCLES (3-5 weeks).
- During the preparation, the same muscles will be stimulated 3 times a week; the first program used is STRENGTH followed by RESISTANCE.
- A transition/interval week can be scheduled between the first and second cycle with only one session in the week (for recovery of the muscles).
- It is not advisable to target more than 2 muscle groups during a training period, but you can alternate between a lower limb muscle and an upper body muscle.
- It is recommended to prioritise the quadriceps muscles in regards to lower limb stimulation. In relation to the upper body, according to what you wish to achieve, you can stimulate the large pectorals, biceps or latissimus dorsi.
- The 3 weekly sessions should be distributed as evenly as possible throughout the week; Compex sessions should take place on days either without training or without a demanding workout.
- The key factor in getting the most out of Compex stimulation is adjusting the intensity. The intensity should always be at your maximum tolerance level, or in other words, the highest setting you can bear with reasonable comfort.
- The intensity determines how many muscle fibers are recruited.
- The higher the intensity, the greater the progress of the muscle development.
- It is important to progress during a session as well as from one session to another. Keep increasing the intensity (if you can).
The combination of dynamic exercises with stimulation does not add any proven efficacy and should be reserved for very experienced athletes working under the supervision of a physical trainer.
- However, it is advisable to voluntarily contract the stimulated muscle during stimulation (without moving the limb); this provides additional comfort and facilitates the progress of the muscle.
- The full preparation regime can be repeated 2-3 times per season.

IMPROVE CORE STABILISATION

CORE STABILISATION PROGRAM

The bottom of the spine is an important bridge which allows transmission of forces between the upper and lower body, and when all is well, ensures mechanical efficiency.

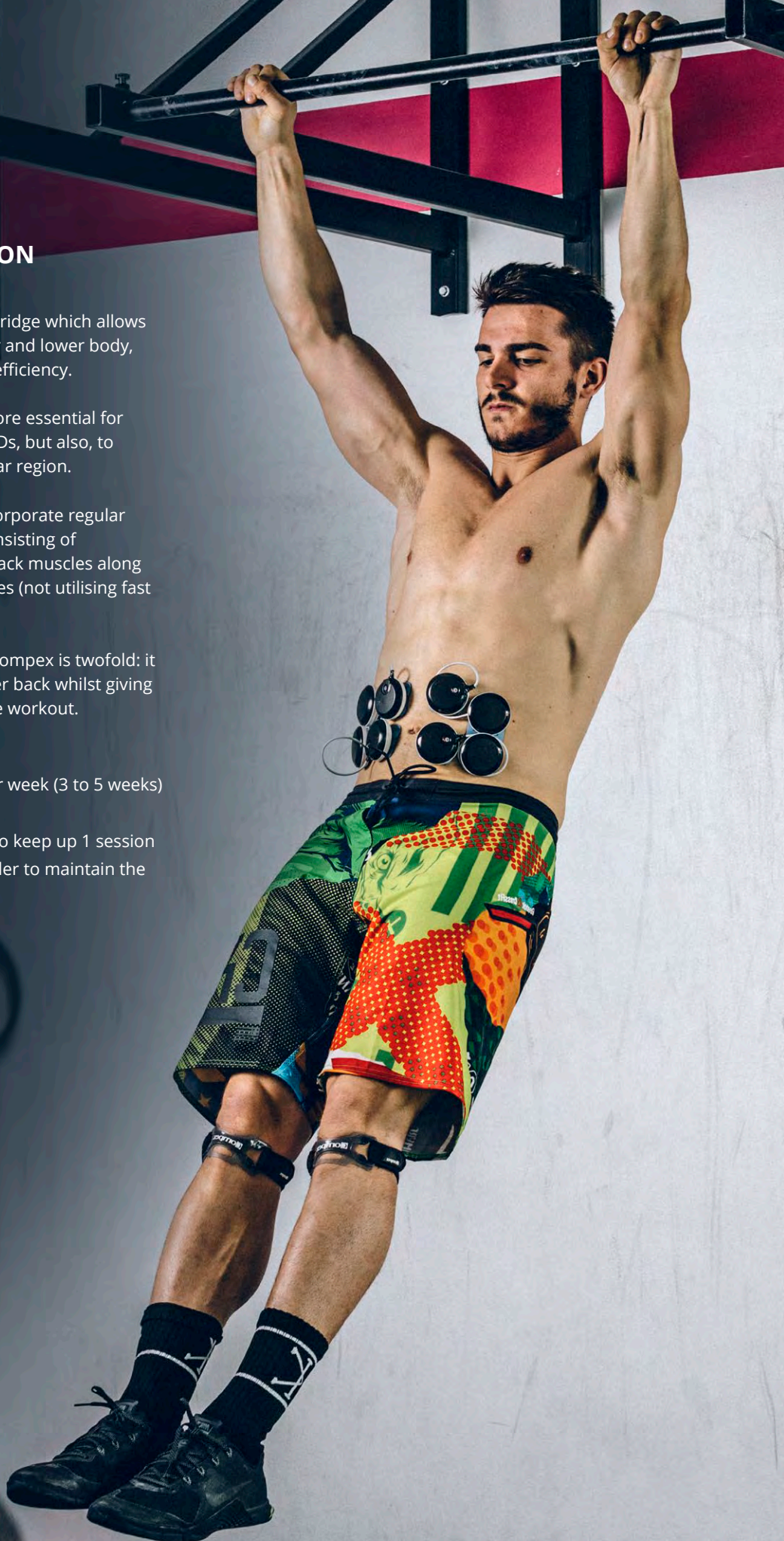
Proper maintenance of this area is therefore essential for better performance during almost all WODs, but also, to reduce the risk of injury around the lumbar region.

The functional training athlete should incorporate regular 'armouring' sessions into their regime, consisting of stimulation of the abdominal and lower back muscles along with exercises suitable for postural muscles (not utilising fast fibers).

The advantage of core stabilisation with Compex is twofold: it significantly reduces pressure on the lower back whilst giving the lumbar-abdominal muscles an intense workout.

GENERAL RULES : HOW TO USE

- Aim for 3 'Core stabilisation' sessions per week (3 to 5 weeks)
- Exhale slowly during each contraction.
- At the end of the regime, it is advisable to keep up 1 session per week using the same program in order to maintain the muscle lining.



2. WARM UP WITH COMPEX

WARM-UP PROGRAM

This program supplements warming up, ensuring optimal muscle-condition during a WOD. It's designed to improve muscular explosivity and delay 'nervous fatigue' (physical or psychological) during repetitions of high-strain movements which require maximum effort.

A Warm-Up session is short (about 9 minutes) and can be completed before the start of a WOD. A special regime incorporating the muscle activation Warm-Up program will allow you to achieve superior performance from the very start of the WOD.

The Warm-Up program generates a kind of beat interspersed with contractions from the stimulated muscle (muscle twitching). This specific type of muscle activation leads to a sharp increase in blood flow and improves the contraction capabilities of the muscles stimulated.

To benefit optimally from the effects of stimulation, make sure to adjust the intensity according to your needs. Stimulators with mi-Range functionality (muscle intelligence) can provide information about the minimum effective intensity, while the Compex SP 8.0 automatically adjusts the intensity of the stimulation until you reach the ideal level. This is mi-AutoRange functionality.

POTENTIATION PROGRAM

Compex SP8.0 also offers the Potentiation program. Like the Warm Up program, this should be completed before beginning a WOD. This program is shorter (less than 4 minutes) with the principle function of improving muscle contractility. It is essential to complete a preliminary warm-up before using this program as Potentiation does not increase circulation in the same way as the Warm Up program.

3. RECOVERY

IMPROVING RECOVERY WITH COMPEX

Functional training sessions can cause a state of temporary, but heavy, fatigue. The accumulation of toxins produced from exertion and alterations in the muscle fibers contribute to this condition. A proper training regime must incorporate workout routines but also recovery between workouts (or indeed competitions).

Training before the musculature has regained its potential can mitigate the benefits of a workout or worse still lead to complications caused by over-training. Compex stimulation can accelerate the muscle recovery process after an intensive effort, exploiting several key factors:

- Increased blood flow to the muscles drains toxins.
- Increasing endorphin and enkephalin (natural substances with analgesic properties) production reduces muscle soreness.
- Decreasing muscle tension has a relaxing effect on the muscle fibers.

Unlike muscle building programs, the Training recovery program does not cause powerful contractions. Rather, it induces simple muscle twitches, providing a massaging sensation. The practical guidelines for using this program (intensity, positioning of the electrodes, body position) are the same as for the Warm Up program.

FURTHER TIPS

- Use this program after each workout, within 3 hours.
- Like all Compex programs, Training recovery can be used on all muscle groups highly stressed during WODs.

4. PAIN MANAGEMENT

RELIEVING PAIN WITH COMPEX

Functional training is very demanding on the joints, muscles and tendon structures, especially when a WOD technique is poorly executed due to tiredness or another factor.

Some injuries like tendinitis (tendon pain) are particularly common among athletes and can be relieved by 'painkiller' programs widely employed by physiotherapists. An mi-TENS program should be used during the acute phase of the injury where it is advised to avoid placing pressure or weight on the afflicted tendon. This program provides a sensory stimulation which helps fight pain and is available on many Compex models. The mi-TENS function regulates intensity, preventing it from reaching an undesirable level, improving the effectiveness of stimulation during a period of injury.

Note: The mi-TENS function, which can be found on some Compex devices (such as SP4.0 and SP8.0), automatically reduces the intensity in the event of muscle contraction.

During the chronic phase of injury, as well as for issues with persistent muscle spasms, the program MUSCLE PAIN (Endorphin) can help by improving blood supply to the tendon or muscle, aiding recovery. Some models offer additional programs to relieve specific pain-areas (neck, lumbago etc).

OTHER ADVANTAGES: REDUCE IMPACT AND INJURIES

Normally, in order to develop strength, you have to work with large external loads. This work often causes multiple pains, leads to extended recovery times, and increases pressure on joints. Compex can help you to keep increasing your strength whilst minimising the risks.

It does this by reducing the impact on joints and shortening recovery times, without adding loads and without sacrificing improvements in performance.

There are two advantages to using Compex in core work: it reduces the risk of injury in the lower back caused by poor execution of the exercises, whilst at the same time producing a greater work load on the muscles involved (abdominals and lower back).

DID YOU KNOW?

It increases strength by **27%***

It increases explosivity by **15%***

It increases muscle volume by **8%***

It reduces lactic acid by **25%**



*Clinical studies available at
www.compex.info

MARTINA BARBARO

REEBOK CROSSFIT OFICINE MILANO

WHAT ADVICE WOULD YOU GIVE TO SOMEONE WHO WANTS TO ACHIEVE THEIR FITNESS GOAL?

Definitely that if you have a goal, you are already halfway to victory. In this day and age, some people still think they can achieve their targets without working hard. Success, not just in sport, is something you gain day by day, and to achieve it you have to fight until the end with your body and soul.

WHAT ADVANTAGES OR BENEFITS DO YOU GET FROM COMPEX IN TERMS OF PERFORMANCE?

From the first day I started using it I noticed improvements after every training session, in terms of muscle recovery. Compex is really useful for athletes who train daily and don't have much recovery time between one training session and the next. The same applies exponentially to competitions where you give 100% in various events. Compex has become the ally that ensures I get optimal recovery.

WHAT ARE YOUR FAVOURITE PROGRAMMES?

Capillarisation, training recovery and post-competition recovery.



STEFANO MIGLIORINI

CROSSFIT ATHLETE

WHAT BENEFITS HAS COMPEX GIVEN YOU IN TERMS OF PERFORMANCE?

A great help for training, especially for muscle recovery.

WHAT ARE YOUR FAVOURITE PROGRAMMES, AND WHEN DO YOU USE THEM?

I use various programmes, but in particular:

- Post competition recovery
- Post training recovery: it gives me immediate relief, a feeling of relaxation and wellbeing, especially after a hard training session.
- Capillarisation: to prepare the muscles for an intense effort
- Relaxing massage

WHAT IS YOUR MAIN GOAL THIS SEASON?

The Opens and Regional Games.



TJ GARCÍA

PHYSIOTHERAPIST AND CROSSFIT L1 TRAINER

WHAT BENEFITS DOES COMPEX GIVE YOU FOR FUNCTIONAL TRAINING?

Sometimes functional training focuses on all-over exercises such as squats, dead lifting, and others. But we mustn't forget the need for exercises that target specific areas, in order to avoid potential imbalances that can stop us from seeing improvements from these workouts. In these cases, electrical stimulation can help us to work on a specific muscle, such as the gluteus medius through squats, to make sure that the knee doesn't go inwards.

It also helps us to gain strength since electrical stimulation helps us increase the number of muscular fibres that respond to contraction, making it more powerful and efficient.

We can also work on muscle resistance to make the muscles more resistant to fatigue.

It is a great help in recovery, because it helps our muscles to relax, and it vascularises the area, cleaning waste products away from the muscle, which are generated when we train.

Other benefits are the convenience of being able to stick on some electrodes anywhere, at a competition, in the car, before and after training, and with wireless technology you can easily include it in your training.

HOW WOULD YOU DEFINE COMPEX IN 3 WORDS?

Effective, convenient and versatile.

DO YOU HAVE ANY TIPS FOR ANYONE STARTING FUNCTIONAL TRAINING?

Always start off with a good trainer who corrects your technique, and have the patience to learn to do the movements properly.

WHAT IS IT THAT MAKES FUNCTIONAL TRAINING ATTRACTIVE AND ESSENTIAL?

The fact that it helps us become more agile and stronger for our daily life, for lifting suitcases or children, having a strong and healthy back, being able to run after your child or your niece or nephew without getting out of breath, at the end of the day it helps us enjoy life more.



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COMPEX TRIZONE products combine 3 strategically placed compression zones with the supportive benefits of injected silicone bands to optimize athletes' peak performance

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MED

MAX

TRIZONE KNEE



Combining bracing and compression into one low-profile sleeve

TRIZONE CALF



Low profile, compressive calf sleeve

TRIZONE ELBOW



Low profile, compressive tennis/golf elbow support

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COMPEX WEBTECH products feature a patented silicone web technology that provides support and shock absorption for optimal performance during sports

LEVEL OF SUPPORT



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MAX

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The CompeX devices stimulate the motor neurons in healthy people to improve muscle performance, increase blood flow and allow your muscle fibres to relax. The product is also intended to stimulate the sensory nerves in order to obtain analgesic effects. CompeX muscle stim devices have a medical certificate and are regulated in accordance with CE legislation.