# Compex 

Your intelligent training partner

## HOW TO INTEGRATE GLECTROSTIMULATION CYCLING TRAINING



## HOW TO USE COMPEX IMPORTANT TIPS

## WHEN TO START THE PREPARATION AND WHAT PLAN TO CHOOSE

- This booklet shows you two 12 week training plans to prepare for a race or sporting event.

The first plan (Page 4) is for cyclists who train up to 3 times a week
The second plan (Page 8) is for cyclists who train 4+ times a week or match any of the following criteria:

- at least 4 workouts per week.
- more than 3 years of regular road cycling training.
- Regularly rank in the top $50 \%$ in competition.
- The pre-requisite for this training is good physical condition and regular practice of a physical activity or sport during the previous months.

If you have never used electro-stimulation in training before, it is strongly advised that you have a $2-3$ week initiation and familiarisation of the chosen plan and the implications before taking on the plan in full

## SIMILAR PROGRAMS ACROSS DIFFERENT COMPEX DEVICES

Sometimes, Compex models will use different names to refer to the same program type. Below is a key so you can identify the correct program:

- CAPILLARIZATION = OXYGENATION = OVERCOMPENSATION = LONG RUN OPTIMISATION
- CORE STABILIZATION = MUSCLE BUILDING
- TRAINING RECOVERY = ACTIVE RECOVERY


## ADJUSTING THE INTENSITY = THE KEY TO SUCCESS!

For Development sessions (Endurance, Strength, Resistance, Core stabilization)
Maximum toleration: It is crucial to reach the highest level of intensity possible (though the session must always remain bearable). Intensity determines the number of muscle fibers which are engaged or 'recruited' by the stimulation. The best way to determine your maximum toleration is simply through your own judgement of what your body can cope with. The contractions must be powerful without ever becoming intolerable. The progress of a stimulated muscle will be greater if the Compex device recruits a high number of its fibers.

Some general rules to help you train:

- Observe the electrode placements indicated and note their polarity (+ and - ). For wireless devices: the + polarity is located on the electrodes where there is an on / off button; for wired models, the + polarity comes from the color wire.*
- Consider changing your electrodes on a regular basis. If the gel layer on the electrode deteriorates, it will be less conductive and you will not be able to achieve higher levels of stimulation.
- Always look to progress:
- Increase the intensity marginally every 3,4 or 5 contractions throughout a session.
- In subsequent sessions aim to exceed the level of intensity reached in the previous session
- It is often more comfortable to voluntarily contract the muscles, synchronised with the stimulation


## For Training recovery and Capillarization sessions:

Increase the intensity gradually; it should produce visible muscular twitches.
*For older generation devices, the + polarity is located alongside the red connector.

## BODY POSIIIONING AND COMBINED WORKOUT

## QUADRICEPS:

STRENGTH AND RESISTANCE PROGRAMS


ELECTRODE PLACEMENT (WIRED)


ELECTRODE PLACEMENT
(WIRELESS)


- Sit with knees bent at approximately $90^{\circ}$.
- Secure the ankles to avoid knee extension when there is a powerful contraction

OR


- Sit on chair
-When the contraction begins, position yourself in a semi-squat
- Sit back down at the end of the contraction
- Keep the back straight, lower back arched and eyes facing straight forward


## ABDOMINAL AND LUMBAR MUSCLES: CORE STABILIZATION PROGRAM



- Sitting firmly on a seat, with the back straight (it should not be supported)
- With each contraction, it is advisable to carry out the following exercise:
- Breathe out slowly to empty the lungs for the duration of the contraction
- Pull in/retract the stomach
- Keep the back straight and head level

QUADRICEPS:
ENDURANCE PROGRAM


- Sitting or lying down with the knees more or less extended
- It is up to each person to find the most comfortable position for them
- Given the long duration of this program, it is possible to change position during the course of the session


## QUADRICEPS AND TRICEPS SURAL: TRAINING RECOVERY AND CAPILLARIZATION PROGRAMS



[^0]
## PRFPARATION FOR THOSE WHO TRAIN 3 TIMES PER WEEK

## INSTRUCTIONS:

The preparation aims to schedule the 2 larger sessions of the week on the weekend, which is when the majority of cyclists have the most free time. However, these sessions can quite be shifted to other days of the week. In this case, the 2 sessions of development (endurance, strength, resistance) must be carried out on the days without training.

You can perform multiple Core stabilization sessions each week, the usual rule being 3 sessions each week for 3-4 weeks

|  | CYCLING |  | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | REST |  | 1h30 <br> in the middle of the session: <br> 6 sprints of 30 seconds each <br> Rest 3 to 5 seconds |  | REST | 2h30 <br> in the middle of the session: <br> 4 blocks of 7 ' at full force <br> Rest $5^{\prime}$ | Long run 3h |
|  |  | PHYSICAL PRFPARATION |  | Endurance 1 Quadriceps |  | Endurance 1 Quadriceps |  |  | Capillarization Quads |
|  |  | RECOVERY |  |  | Training recovery Quads and Triceps sural |  |  | Training recovery Quads and Triceps sural |  |





| $\begin{aligned} & \bullet \\ & \text { 프 } \\ & \pi \\ & \hline \end{aligned}$ | CYCLING |  | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | REST | REST | 1h15 <br> in the middle of the session: <br> 2 sets of $12^{\prime}$ low gear with velocity |  | REST | 1h30 <br> specific work in reps (dancer, sitting, relaunch) of $30^{\prime}$ <br> Or calm run, very <br> flexible if race <br> preparation is on <br> Sunday | Long run 3h max, or cycling preparation test |
|  |  | PHYSICAL PREPARATION |  |  |  | Endurance 1 <br> Quadriceps |  |  | Capillarization Quads and Triceps sural |
|  | $y$ | RECOVERY |  |  | Training recovery Quads and Triceps sural |  |  | Training recovery Quads and Triceps sural | Training recovery Quads and Triceps sural |

## PREPARATION FOR THOSE WHO TRAIN 3 TIMES PER WEEK





## PREPARATION FOR THOSE WHO TRAIN 5 TIMES PER WEEK



| $\left\|\begin{array}{l} \mathrm{N} \\ \mathbf{n} \\ \frac{\pi}{z} \end{array}\right\|$ | CYCLING |  | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | REST | 1h home training (flexibility) | 1h30 <br> in the middle of the session: <br> 6 to 10 hilly reps of 300 meters <br> Rest in the descent | 1 h 30 in the middle <br> of the <br> session: <br> 2 sets with 5 ' high gear rhythm 60rpm and then 3' flexible |  | 2h30 <br> in the middle of the session: <br> 4 sets of $10^{\prime}$ with alternating force/ velocity Rest for 5' | Long run 3h30 |
|  |  | PHYSICAL PREPARATION |  | Strength 1 Quadriceps |  |  | Strength 1 <br> Quadriceps |  | Capillarization Quads and Triceps sural |
|  |  | RECOVERY |  |  | Training recovery Quads and Triceps sural | Training recovery Quads and Triceps sural |  | Training recovery Quads and Triceps sural |  |



| $\begin{aligned} & 4 \\ & \text { 나 } \\ & \text { III } \end{aligned}$ | CYCLING |  | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | REST | 1h of home training free variations pace and gears | 1h30 <br> in the middle of the session: <br> $10 \times$ ( 1 'fast - 1 'flexible) | 1h30 <br> 2 sets <br> high gear <br> $3 \times\left(2^{\prime} 30\right.$ fast $-2^{\prime}$ flexible) Rest for $10^{\prime}$ between the sets |  | 2h30 <br> in the middle of the session: <br> 2 sets of $30^{\prime}$ high gear rhythm <br> 60rpm <br> Rest for $12^{\prime}$ | Long run 4h with free variations of pace |
|  |  | PHYSICAL PREPARATION |  | Strength 1 Quadriceps |  |  | Strength 1 Quadriceps |  | Capillarization Quads and Triceps sural |
|  |  | RECOVERY |  |  | Training recovery Quads and Triceps sural | Training recovery Quads and Triceps sural |  | Training recovery Quads and Triceps sural |  |


| $\begin{aligned} & \circ \\ & \frac{\pi}{11} \\ & 2 \end{aligned}$ | CYCLING |  | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | REST | 45' of home training (flexibility) | 1h15 <br> in the middle of the session: <br> 2 sets of $12^{\prime}$ low gear velocity | 1h30 <br> 8 sprints $30^{\prime \prime}$ <br> all to the right <br> Rest for 3' |  | 1h30 <br> specific work in reps (dancer, sitting, relaunch) on $30^{\prime}$, or calm run, very flexible if race preparation is on Sunday | Long run 3h max or, test of cyclosport preparation |
|  |  | PHYSICAL PREPARATION |  |  |  |  | Strength 1 Quadriceps |  | Capillarization Quads and Triceps sural |
|  |  | RECOVERY |  |  | Training recovery Quads and Triceps sural | Training recovery Quads and Triceps sural |  | Training recovery Quads and Triceps sural |  |


| $\begin{aligned} & \text { N } \\ & \text { Nㅡㅇ } \\ & \text { IN } \end{aligned}$ | CYCLING |  | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | REST | 1h of home training different free variations pace and gears | 1h30 <br> in the middle of the session: <br> 8 sprints of $30^{\prime \prime}$ all to the right Rest for 2' | 1h30 <br> in the middle of the session: <br> 2 sets high gear with $5 x$ ( $1^{\prime} 30^{\prime \prime}$ quickly $1^{\prime}$ flexible) <br> Rest for $10^{\prime}$ between the 2 sets |  | 2h15 <br> in the middle of the session: <br> 4 sets with $8^{\prime}$ at 100 $120 \mathrm{rpm}+2^{\prime}$ high gear going all to the right | Long run $3 h 30$ with free variations of pace |
|  |  | PHYSICAL <br> PRFPARATION |  | Resistance 1 Quadriceps |  |  | Resistance 1 <br> Quadriceps |  | Capillarization Quads and Triceps sural |
|  |  | RECOVERY |  |  | Training recovery Quads and Triceps sural | Training recovery Quads and Triceps sural |  | Training recovery Quads and Triceps sural |  |

## PREPARATION FOR THOSE WHO TRAIN 5 TIMES PER WEEK

| $\begin{aligned} & \infty \\ & \vdots \\ & \frac{\pi}{1} \\ & \vdots \end{aligned}$ |  |  | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CYCLING |  | REST | 1h15 try out different speeds | 1h30 <br> in the middle of the session: <br> 8 sprints of $30^{\prime \prime}$ all to the right Rest for 2' | 1h30 <br> in the middle of the session: <br> 2 sets high gear with $5 x$ ( 1 ' $30^{\prime \prime}$ quickly $1^{\prime}$ flexible) <br> Rest for 10 ' between the 2 sets |  | 2h15 <br> in the middle of the session: <br> 4 reps with $8^{\prime}$ at $100-$ 120rpm +2 ' high gear going all to the right | Long run 3h30 with free variations of pace |
|  |  | PHYSICAL <br> PREPARATION |  | Resistance 1 <br> Quadriceps |  |  | Resistance 1 Quadriceps |  | Capillarization Quads and Triceps sural |
|  |  | RECOVERY |  |  | Training recovery Quads and Triceps sural | Training recovery Quads and Triceps sural |  | Training recovery Quads and Triceps sural |  |
| $\begin{aligned} & \circ \\ & \text { int } \\ & \text { in } \\ & \hline \end{aligned}$ | CYCLING |  | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|  |  |  | REST | 1h15 try out different speeds | 2h00 <br> in the middle of the session: <br> 3 blocks of $15^{\prime}$ <br> high gear, rhythm <br> 60rpm <br> Rest for $10^{\prime}$ | 1 h30 <br> in the middle of the session: <br> $2 \times 30^{\prime}$ high gear <br> 50-60rpm |  | 2h30 <br> in the middle of the session: <br> 5 to 6 hilly reps of 1 km <br> to $7 \%$ <br> Rest on the descent | Long run 5 h <br> with free variations <br> of pace |
|  |  | PHYSICAL PREPARATION |  | Resistance 1 <br> Quadriceps |  |  | Resistance 1 Quadriceps |  | Capillarization Quads and Triceps sural |
|  |  | RECOVERY |  |  | Training recovery Quads and Triceps sural | Training recovery Quads and Triceps sural |  | Training recovery Quads and Triceps sural |  |
| $\begin{aligned} & e \\ & \frac{1}{4} \\ & \frac{1 \pi}{3} \\ & 2 \end{aligned}$ | CYCLING |  | MONDAY | TUESDAY | WIEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|  |  |  | REST | 1 h30 <br> Try out different speeds | 1h45 <br> hilly terrain to mount all the reps in progressive acceleration | 1h30 <br> in the middle of the session: <br> 8 sets high gear ( 1 'fast - 1 ' flexible) |  | 2h30 <br> in the middle of the session: <br> 3 hilly reps of 2 km 1x velocity low gear 1x50-60rpm high gear sitting on saddle 1x in progressive acceleration | Long run 6h with free variations of pace |
|  |  | PHYSICAL <br> PREPARATION |  | Resistance 1 <br> Quadriceps |  |  | Resistance 1 Quadriceps |  | Capillarization Quads and Triceps sural |
|  |  |  |  |  | Training recovery Quads and Triceps sural | Training recovery Quads and Triceps sural |  | Training recovery Quads and Triceps sural |  |


|  | CYCLING |  | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 2 \\ & \frac{\pi}{4} \\ & \frac{\pi}{3} \end{aligned}$ |  |  | REST | 1h15 <br> try different speeds | 1h30 <br> in the middle of the session high gear $10 \times\left(30^{\prime \prime}\right.$ fast $-30^{\prime \prime}$ flexible) | 1h30 <br> hilly terrain <br> in the middle of the session: <br> Hilly specific work Toggle dancer, Force, velocity, relaunch |  | 2h45 <br> in the middle of the session: <br> 6 hilly reps of $1 \mathrm{Km} 7 \%$ <br> Fit in force high gear <br> sitting saddle <br> Rest in the descent | Long run 4 to 5 h with free variations of pace |
|  |  | PHYSICAL <br> PREPARATION <br> RECOVERY |  | Resistance 1 Quadriceps | Training recovery Quads and Triceps sural | Training recovery Quads and Triceps sural | Resistance 1 <br> Quadriceps | Training recovery Quads and Triceps sural | Capillarization Quads and Triceps sural |
| N퓨파 | CYCLING |  | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|  |  |  |  | 1h30 <br> variety of speeds |  |  |  | 1h <br> rotate the legs, without increasing intensity | RACE |
|  |  | OVERCOMPENSATION | REST | Training recovery Quads and Triceps sural | $2 \times$ Capillarization Quads and Triceps sural | $2 \times$ Capillarization Quads and Triceps sural | $2 \times$ Capillarization Quads and Triceps sural | $2 \times$ Capillarization Quads and Triceps sural | Training recovery Quads and Triceps sural |

## WWW.COMPEX.INFO

You COMPEXINTER
$\int$ COMPEXINTER
$\bigcirc$ COMPEXINFO


[^0]:    - Ensure you are in a comfortable lying position
    Elevate the feet/legs to receive the maximum benefit of the
    stimulation

