

Hosand Recovery Valuation

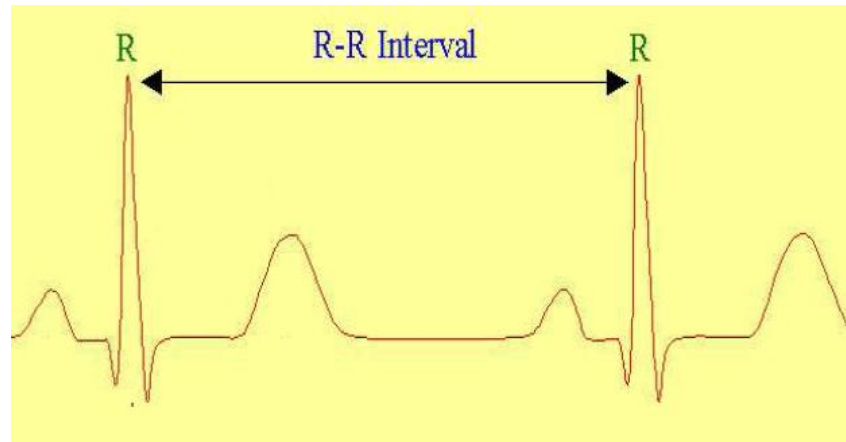


The Methodology of assessment of athlete's overall situation and recovery.



Heart Rate Variability.

Heart Rate Variability (HRV) is the natural variation of the time lapse between an heart beat and the following one (RR or beat-to-beat interval).



The significance of the analysis of Heart Rate Variability.

Individualized assessment of the athlete

Each person reacts differently to various external excitements or to the same stimulus, according to his/her status in a specific moment.





Training workload
can be scheduled
according to changes
within the overall
situation of each
athlete

Physical
activity is one
of the
variables that
effect the
overall grid

It is possible to keep
under control
the proper recovery,
as an example
after an intense
training session or a
competition



Rapidity and easiness of testing and following analysis

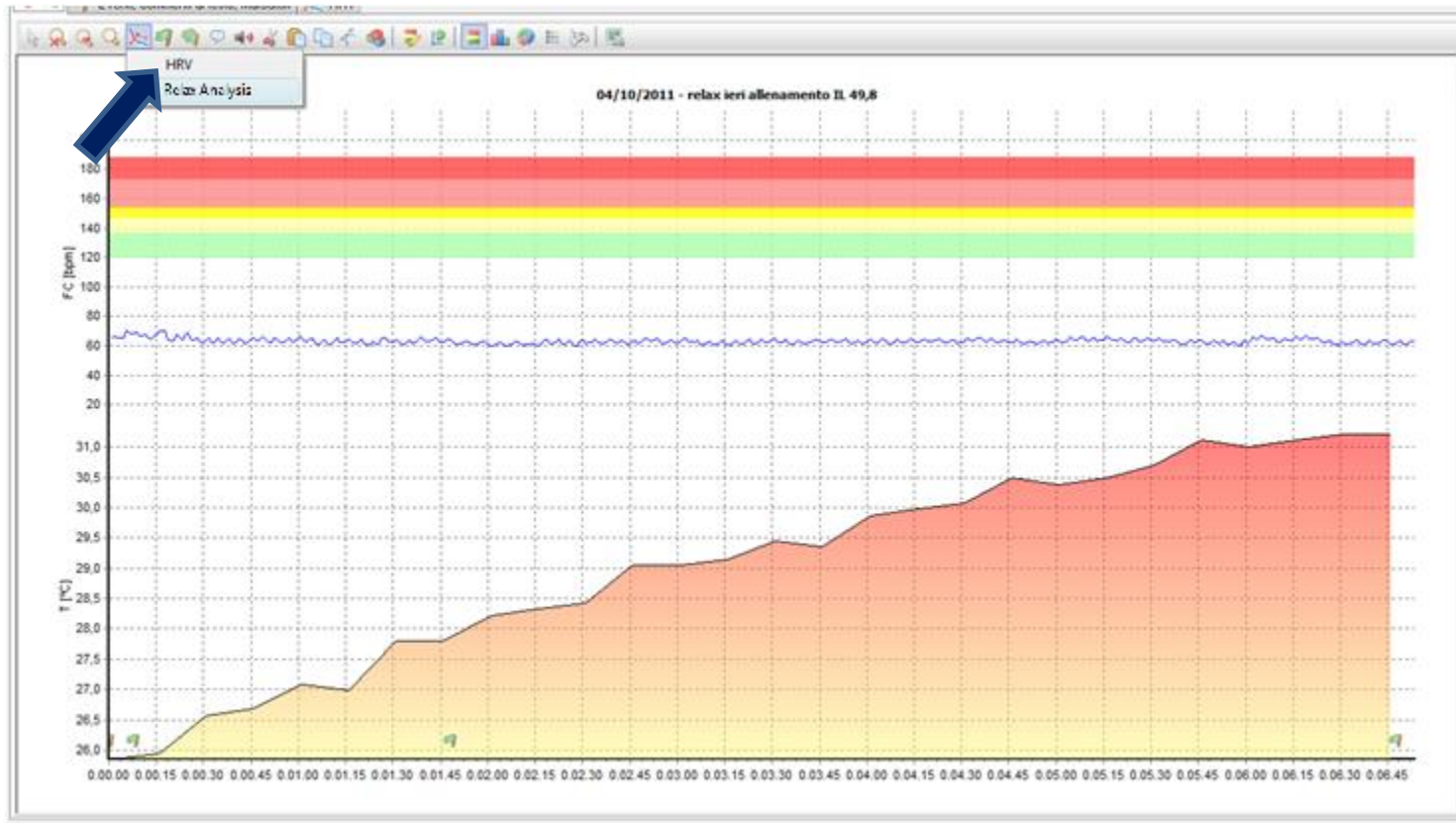
Main features of **MINIcardio PRO** are precision and easiness of use: : it can be easily applied using two adhesives electrodes



.... just lie down and a protocol sound alerts you when the test has finished.

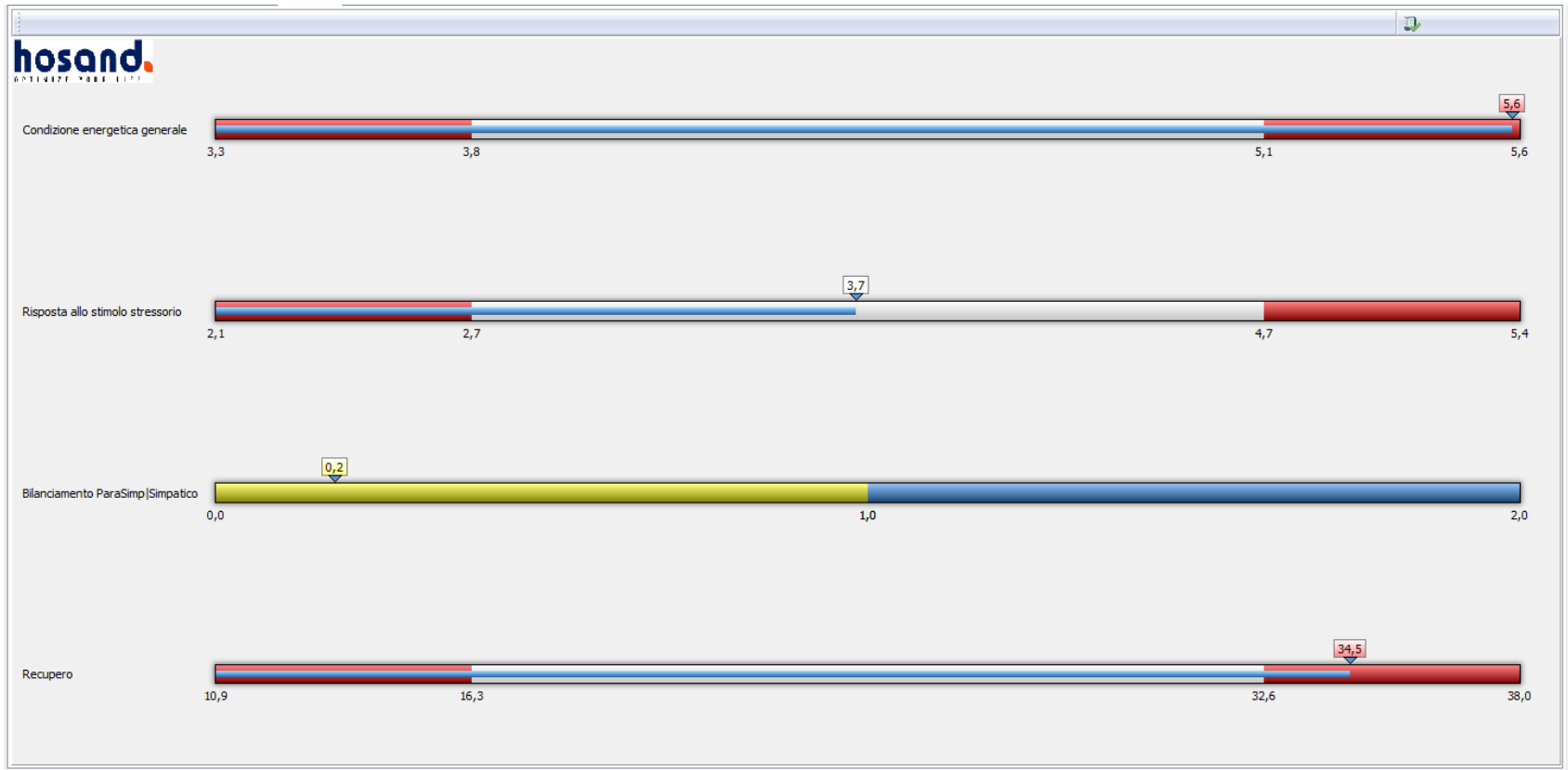


The analysis



With a simple command you apply the analysis function on a rest test.

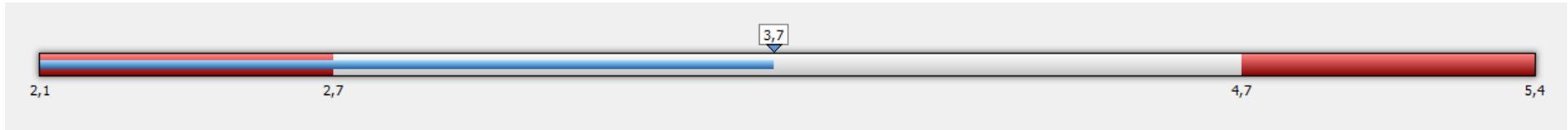
What's the result?



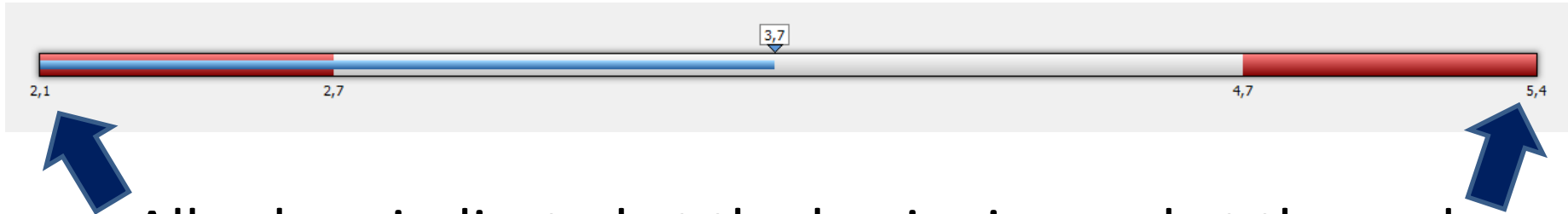
A set of markers linked to the 'overall picture':
easy to be read on a personal graduated scale.



How to read it



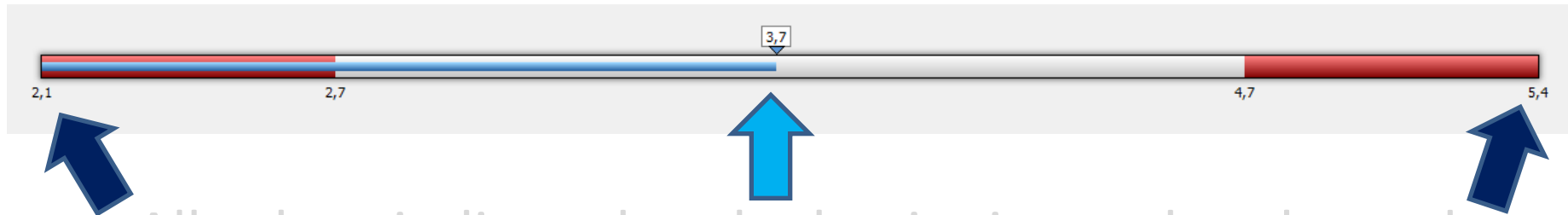
How to read it



All values indicated at the beginning and at the end of the scale are calculated as a function of changes among personal data and have to be recomputed for each test.

This allows an evaluation of the status that is always up-to date and congruous with personal situation.

How to read it

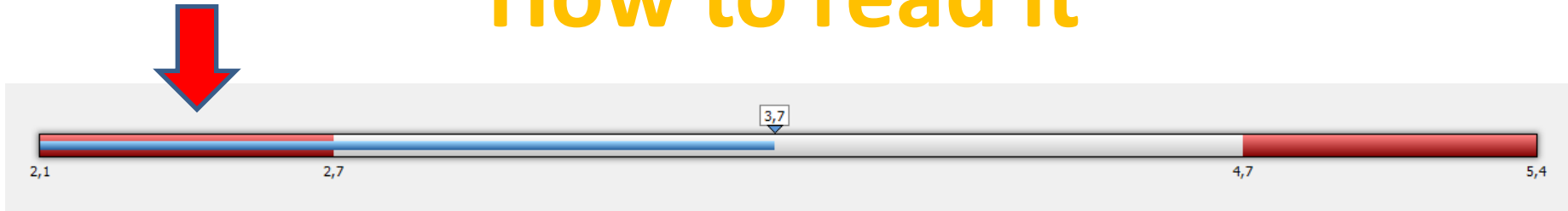


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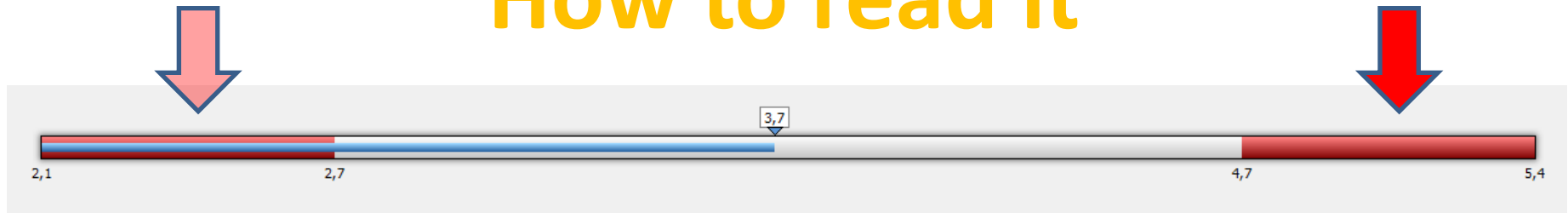
The blue column indicates the test result and the related value is on the label.

How to read it



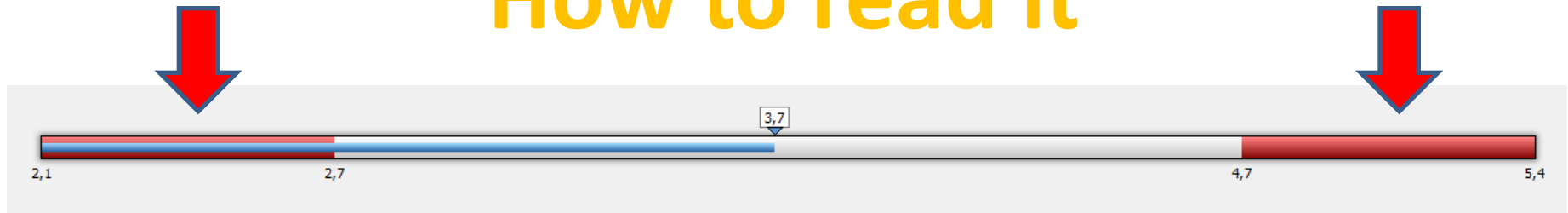
The red zone in the lower or left zone means “warning” for an overall status of “strain”

How to read it



The red zone in the lower or left zone means “warning” for an overall status of “strain” while the zone on the right or upper zone, mean hyper activation.

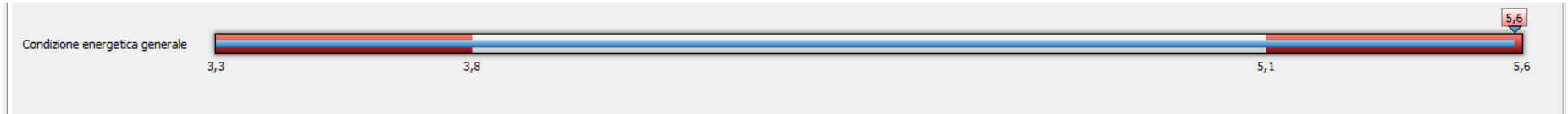
How to read it



The red zone in the lower or left zone means “warning” for an overall status of “strain” while the zone on the right or upper zone, mean hyper activation.

They must be considered as alarm belts that must ring as soon as the subject persists within the same area of “warning” for several days.

What can we read

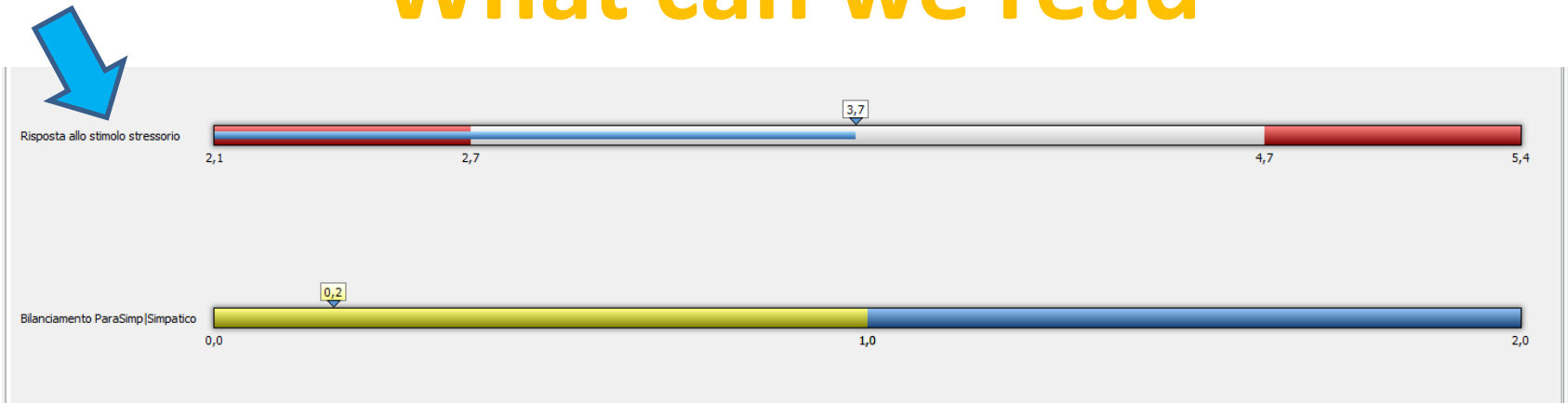


General Energetic Condition:

It represents the potential ability to make the job (it can be compared to a tank)



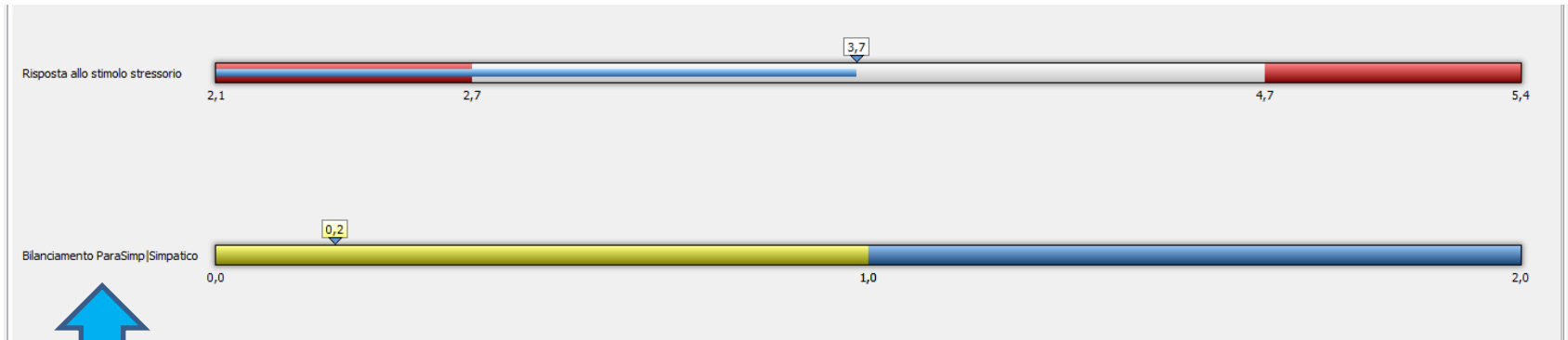
What can we read



Response to the stressor stimuli:

it represents the physiological regulatory reaction, that activates body repair functions, to the workload or to a competition or to an event that requires energy.

What can we read

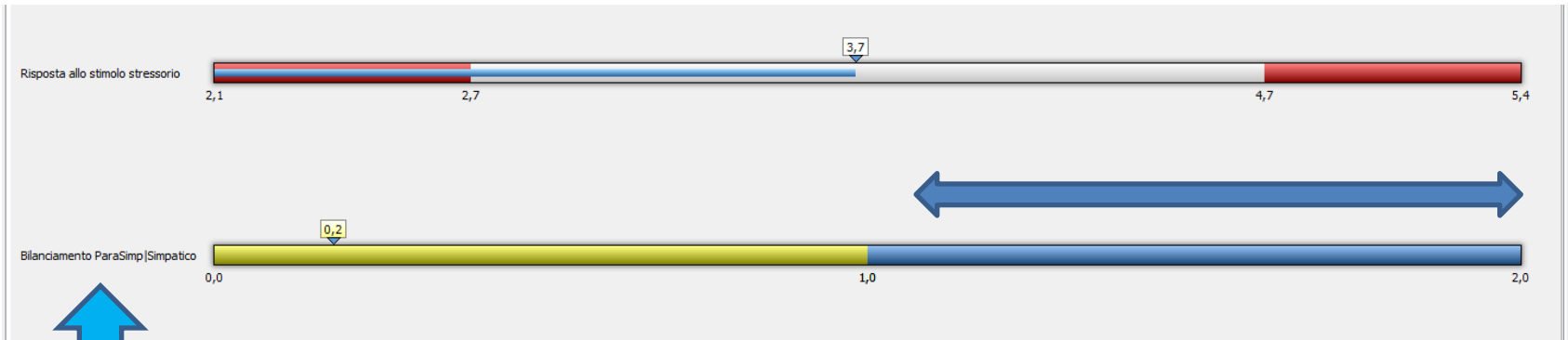


Response to the stressor stimuli:

it represents the physiological regulatory reaction, that activates body repair functions, to the workload or to a competition or to an event that requires energy.

It had to be read together with the balance between the parasympathetic/sympathetic systems and it represents the activation of autonomic nervous system.

What can we read



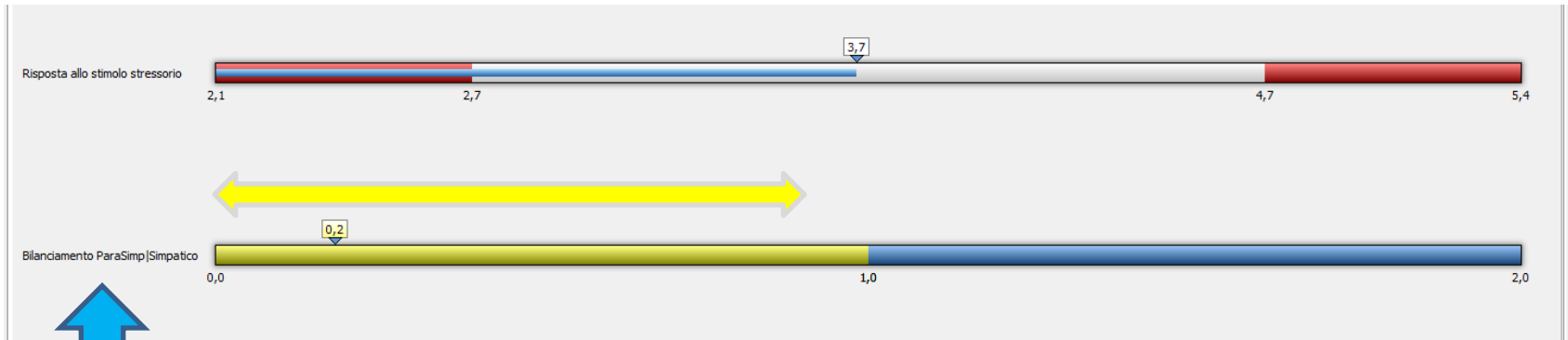
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Blue Zone = Activated Functions

What can we read



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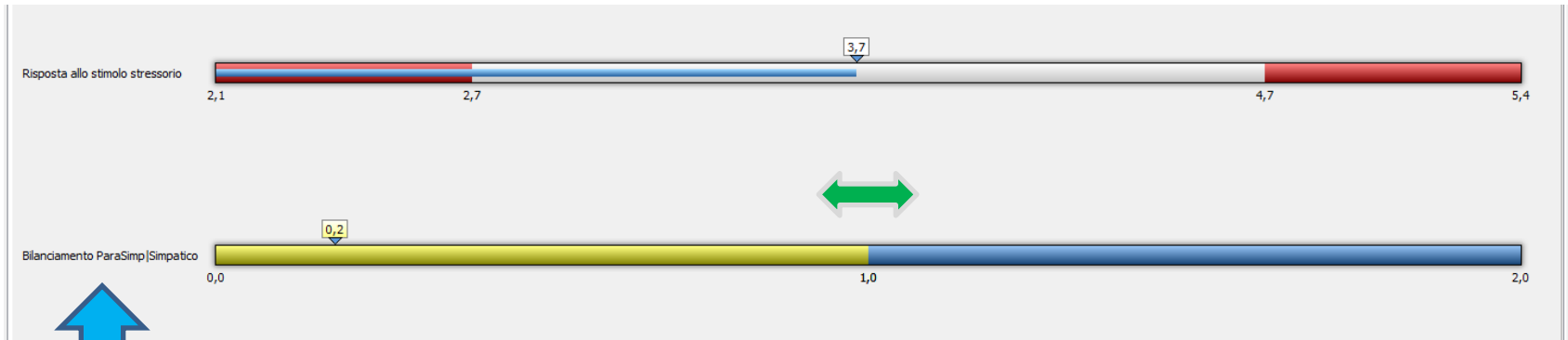
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Yellow Zone = Steady functions

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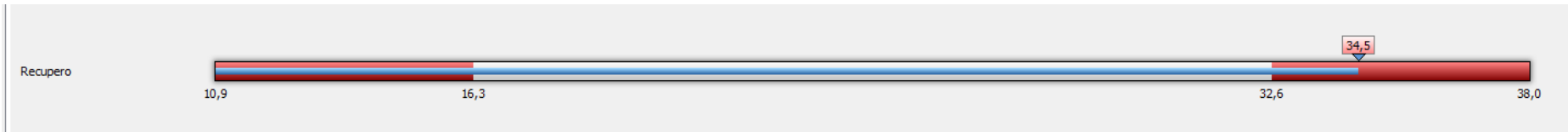
It had to be read together with the balance between the parasympathetic/sympathetic systems and it represents the activation of autonomic nervous system.

Zona blu = Funzioni attivate

Yellow Zone = Steady functions

Middle Zone = Homeostatic balance

What can we read

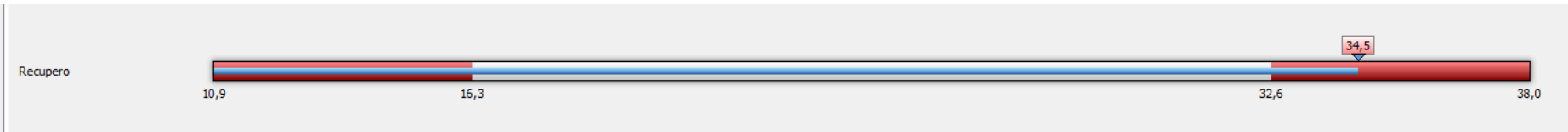
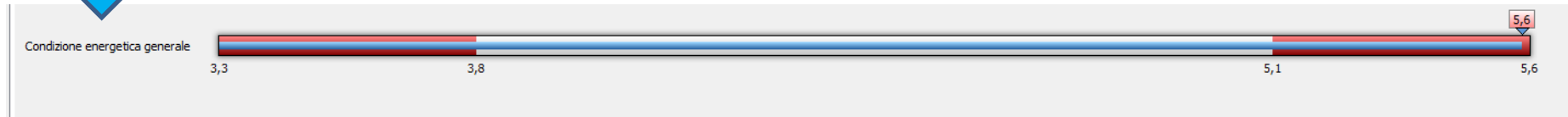


Recovery:

it is an index to measure the individual recovery.



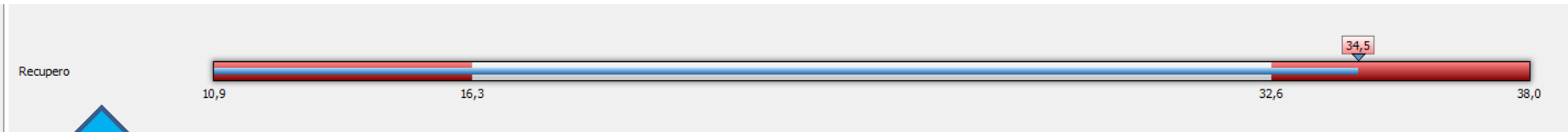
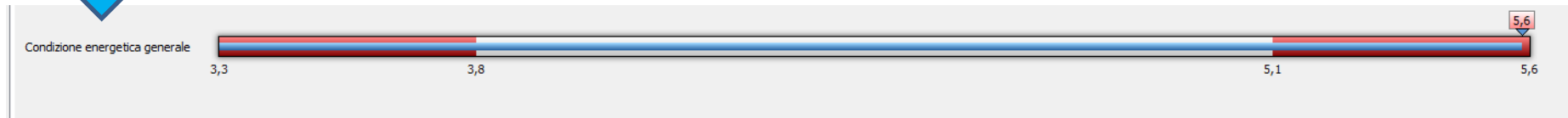
What can we read



General Energetic Condition and



What can we read

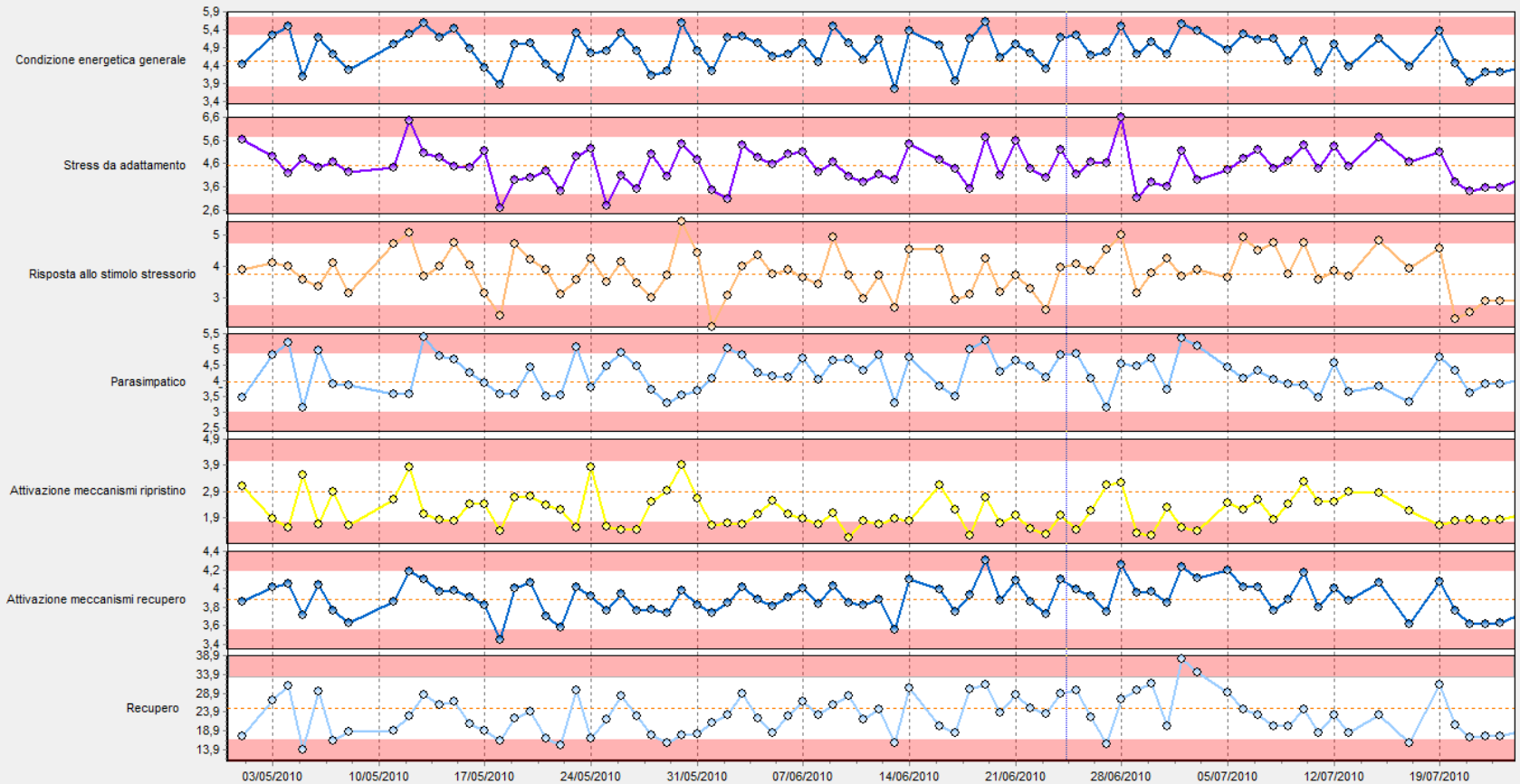


General Energetic Condition and
Recovery:

these two indexes let you decide the
workload to be applied



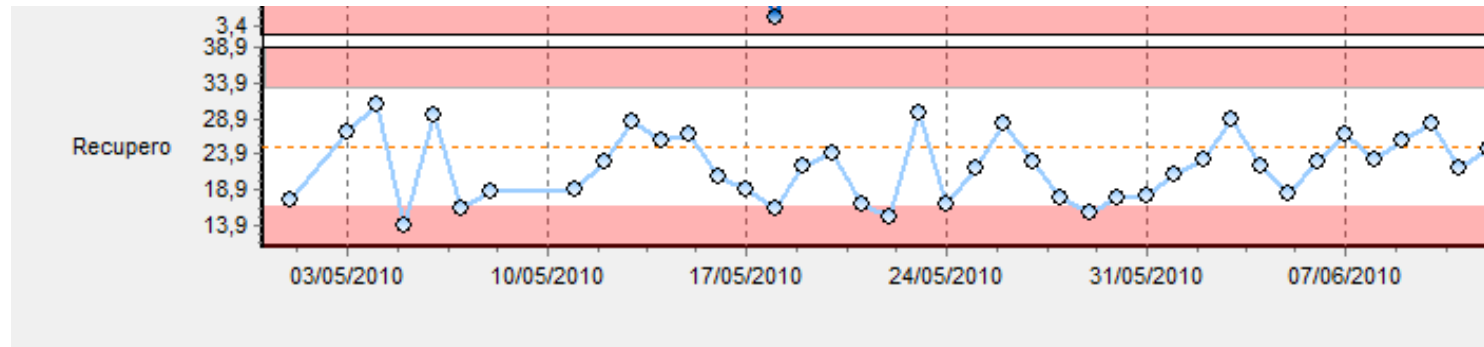
The trend



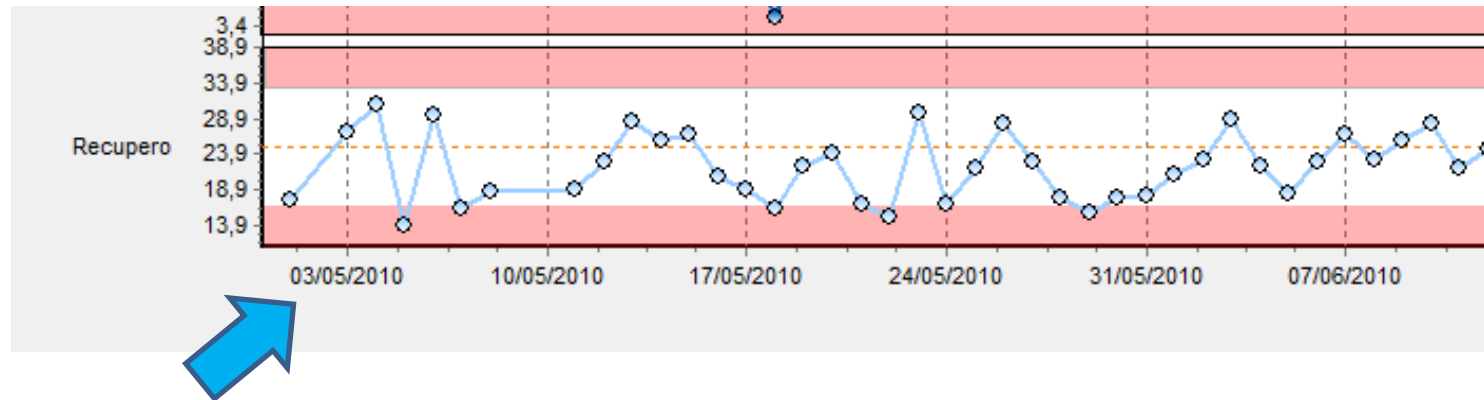
Trends are linear diagrams to display both individual and additional analysis of parameters related to the general condition and recovery mechanisms.



How to read it

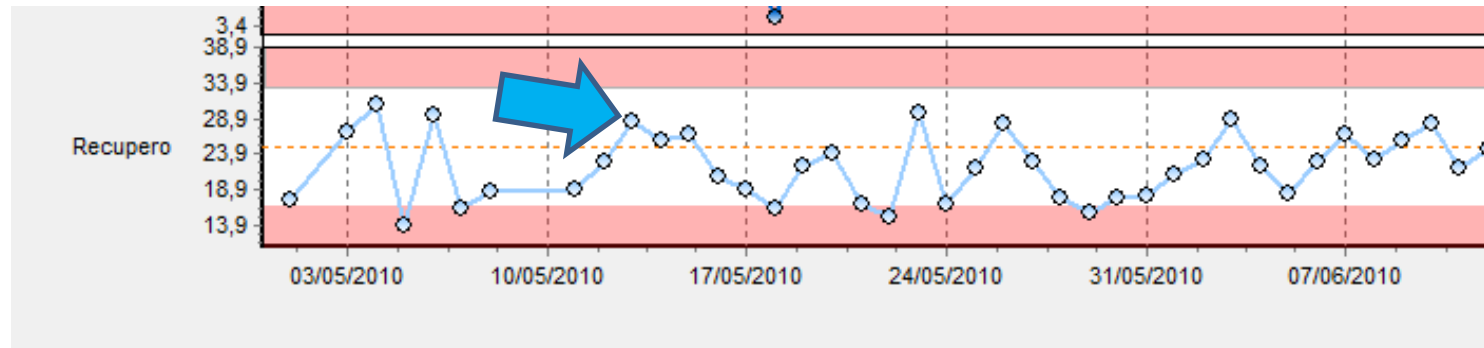


How to read it



The horizontal axis shows the dates.

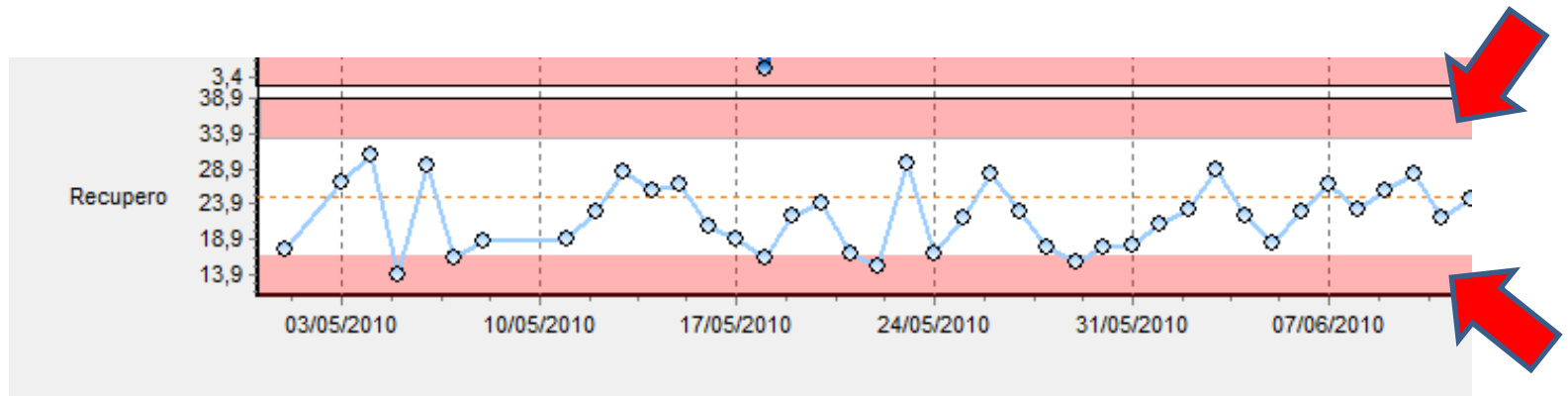
How to read it



The horizontal axis shows the dates.

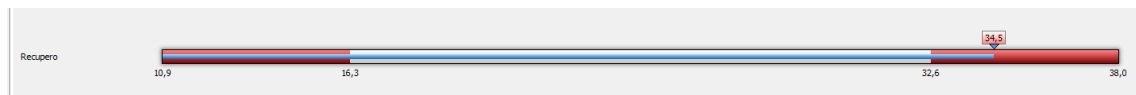
Each round spot represents the daily result of the test

How to read it

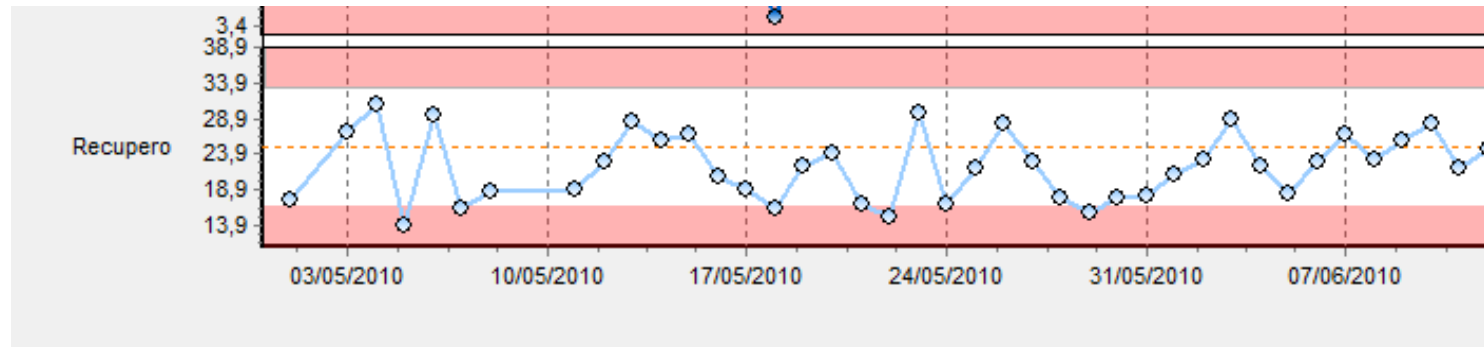


The horizontal axis shows the dates.
Each round spot represents the daily result of the test.

The two red stripes match to the zones of “warning” on the indicator bar

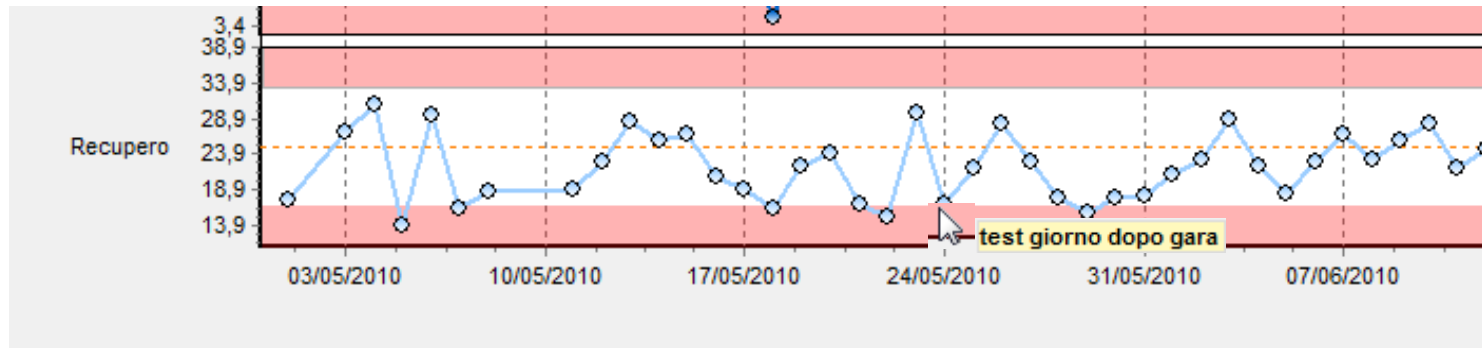


How to read it




Place the mouse cursor over a single daily round spot to read a comment that had been added to the test record

How to read it

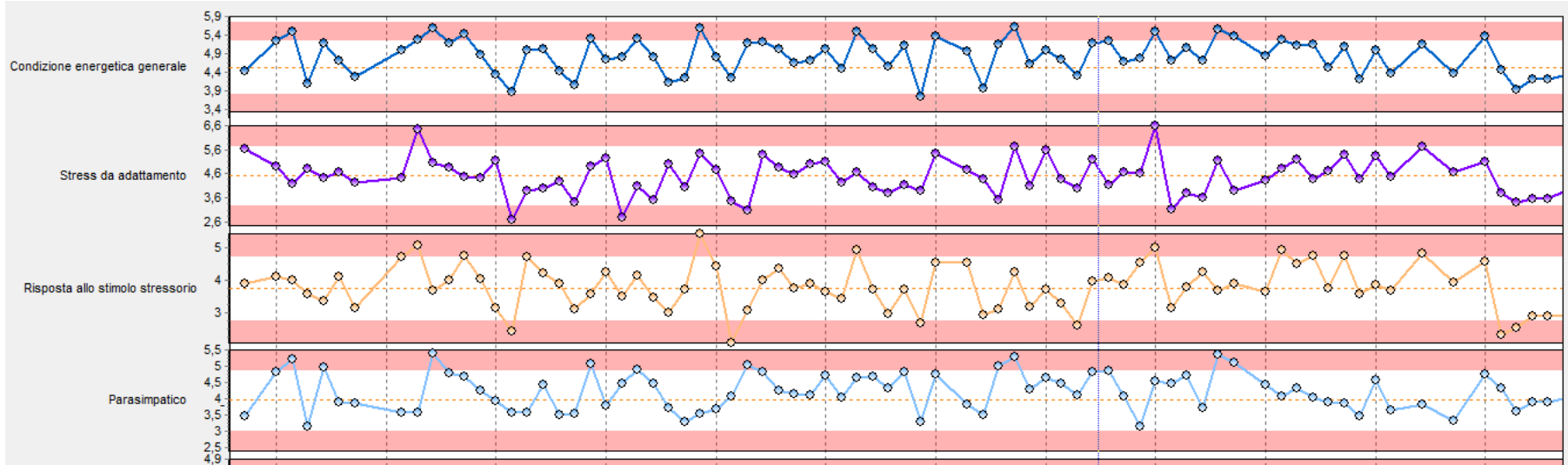


Place the mouse cursor over a single daily round spot to read a comment that had been added to the test record

Data	Tempo	
24/05/2010	_8.26	 <input checked="" type="checkbox"/>
Commento		
test giorno dopo gara		



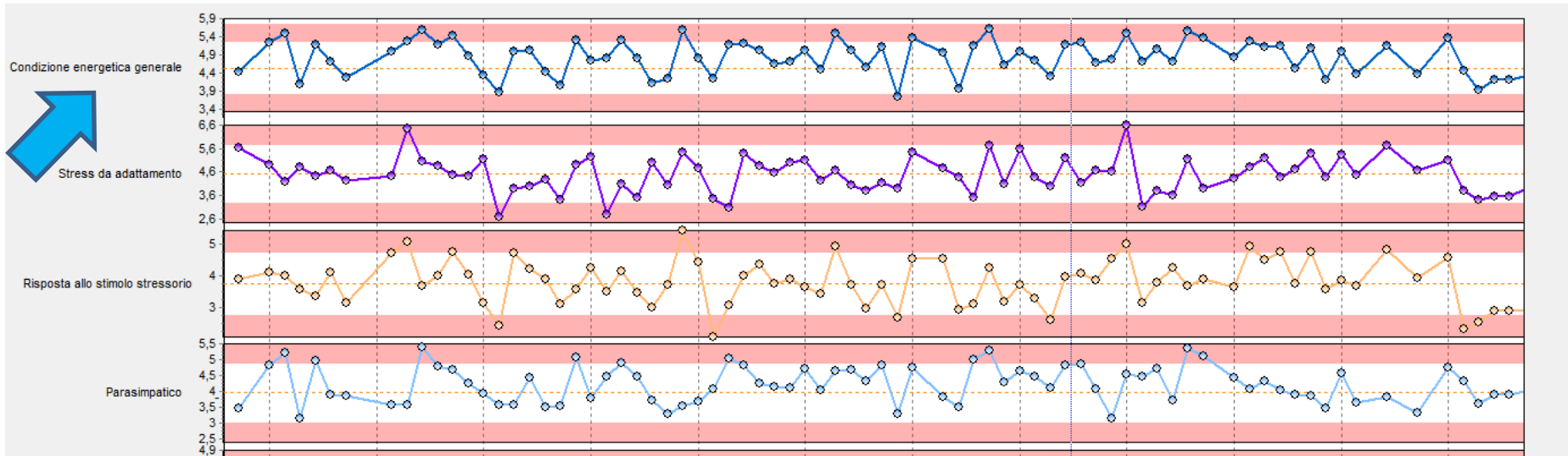
What can we read



The first four parameters refer to the overall situation:

- General Energetic Condition
- Stress from Adaptability
- Response to the stressors stimuli
- Parasympathetic

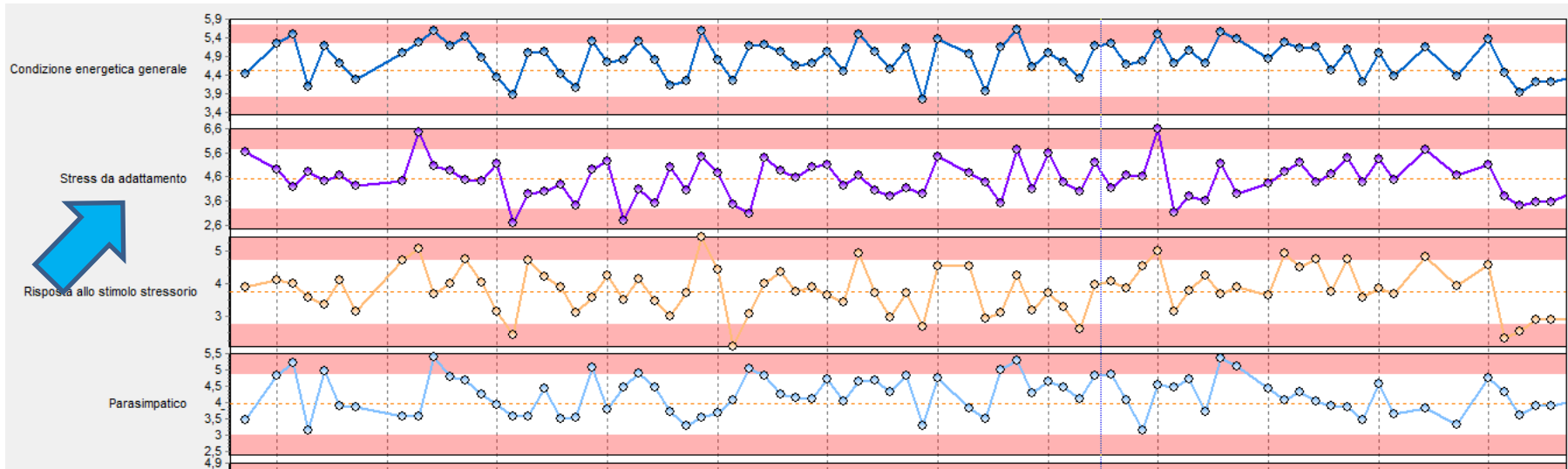
What can we read



General Energetic Condition:

It represents the potential ability to make the job
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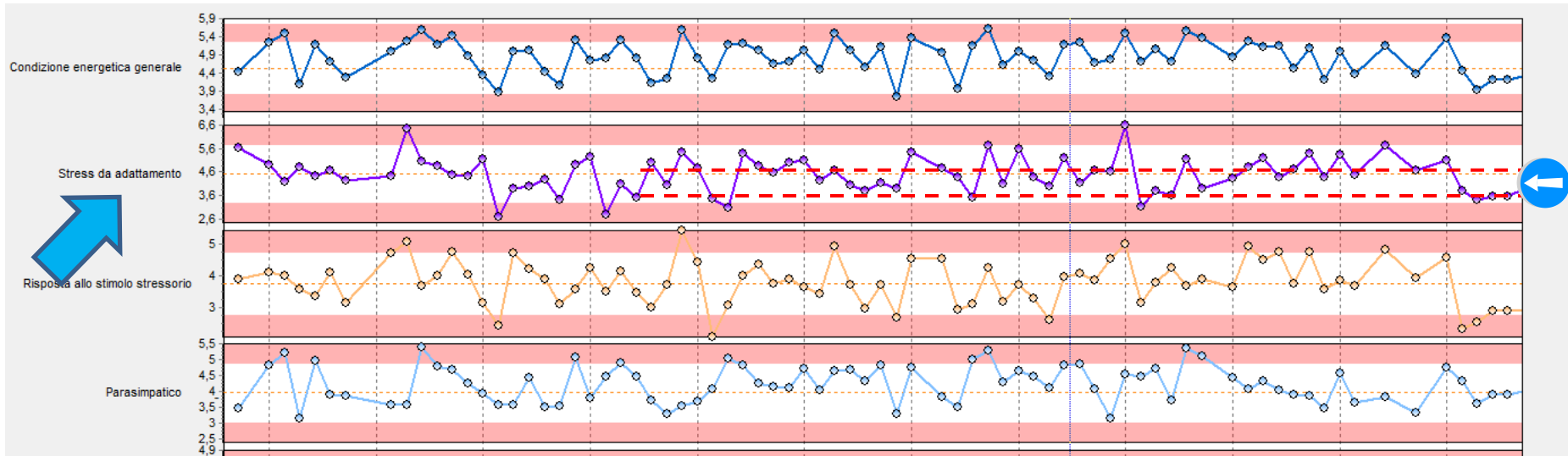
What can we read



Stress from Adaptability:

It is an indicator of the activation of central nervous system due to strain:

What can we read

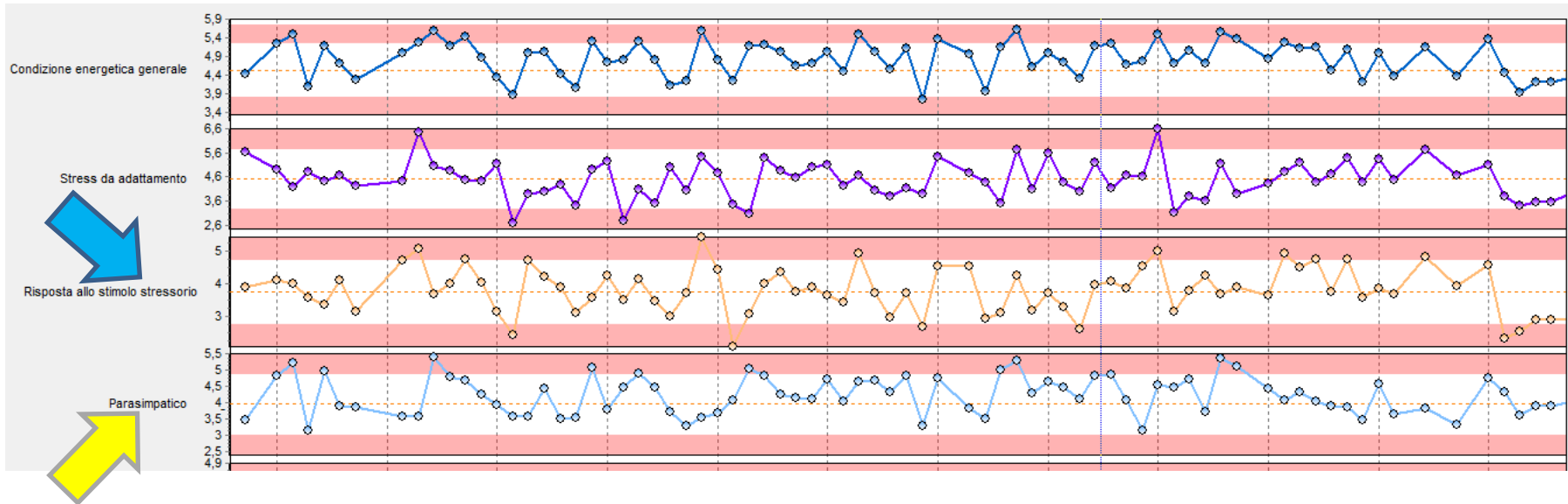


Stress from Adaptability:

It is an indicator of the activation of central nervous system due to strain:

It usually falls in the bottom white part; very low or very high values suggest that the central nervous system operates as an 'help' to the autonomic nervous system to restore the internal balance.

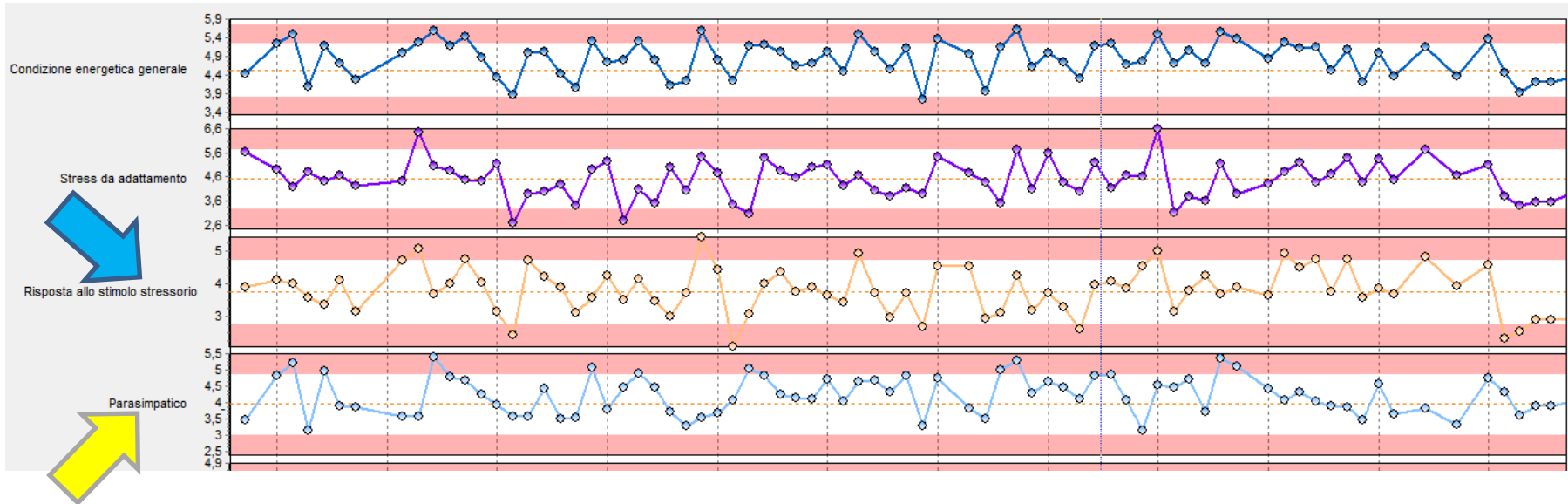
What can we read



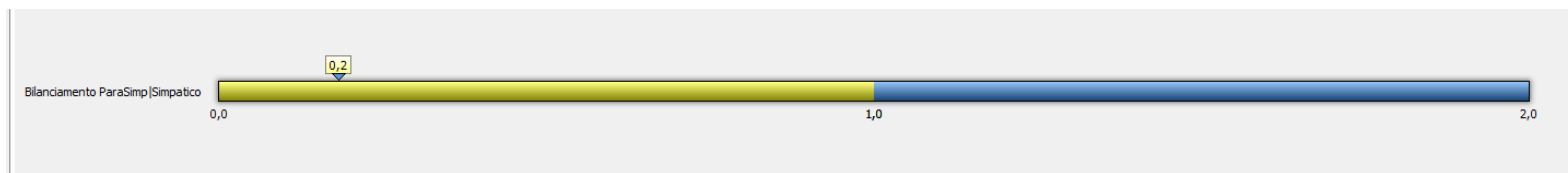
Response to the stressors stimuli and Parasympathetic:

They represent the activation of the autonomic nervous system, in its two parts called Sympathetic and Parasympathetic.

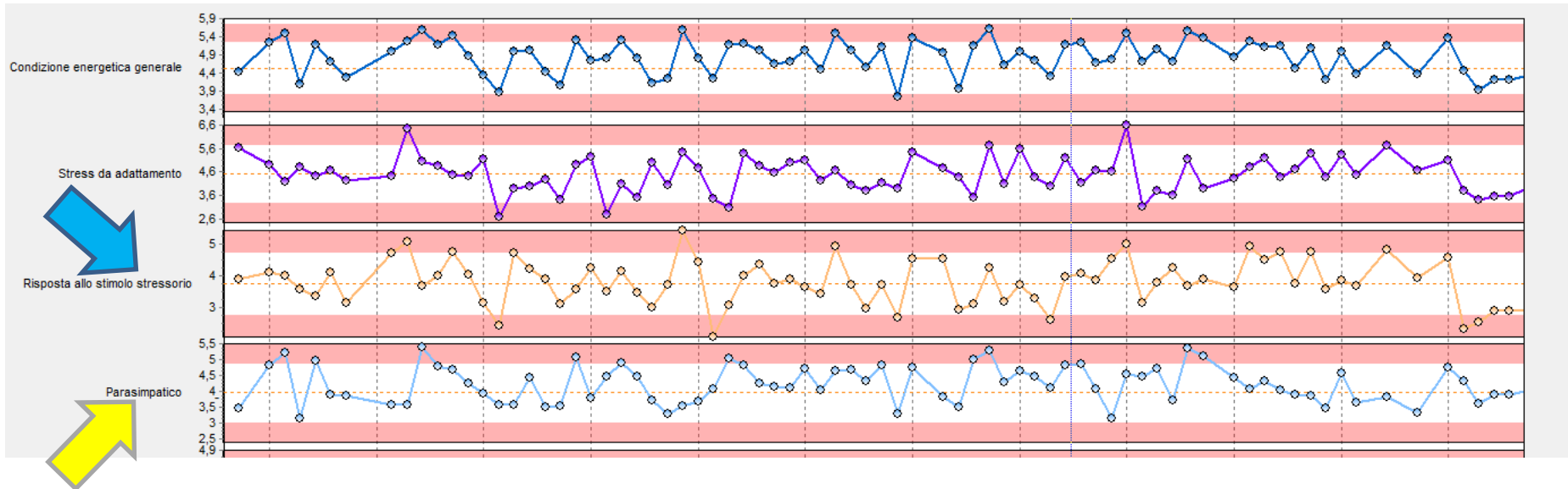
What can we read



The balance between the two systems against a stress stimulus (training, competition, travel, insomnia and so on) is very important and you can see it in the test graph as a balance between parasympathetic and sympathetic.

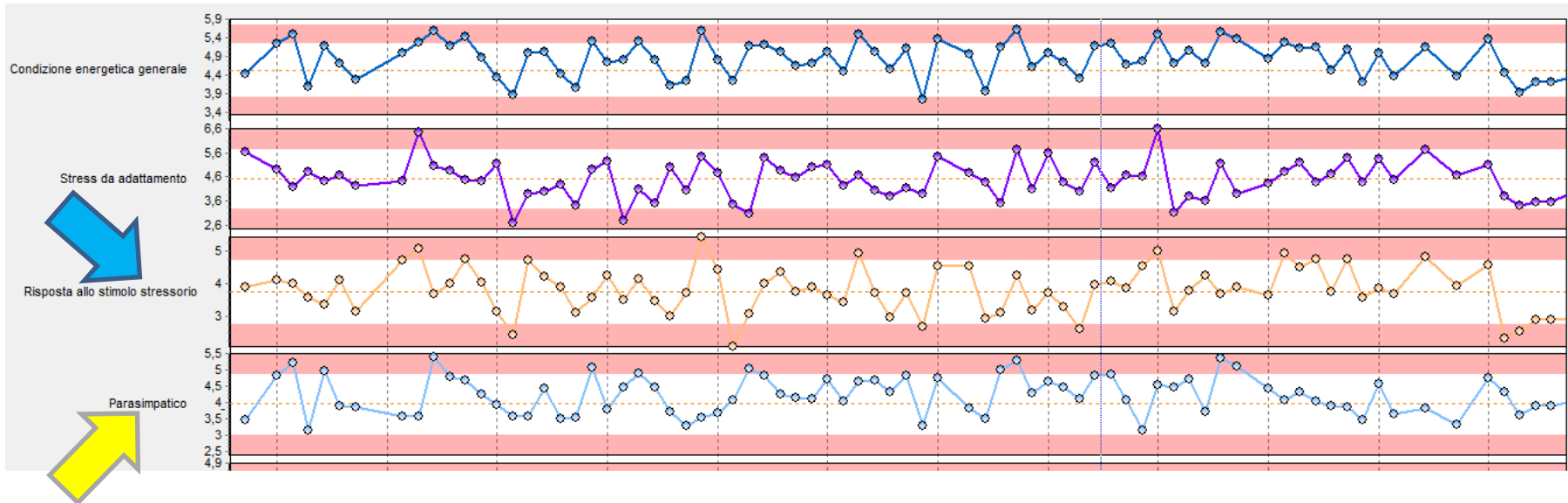


What can we read



It is usual to see the alternate activation of the two systems because the restore of the internal balance (called Homeostasis), follows a dynamic opposition of two physiological processes.

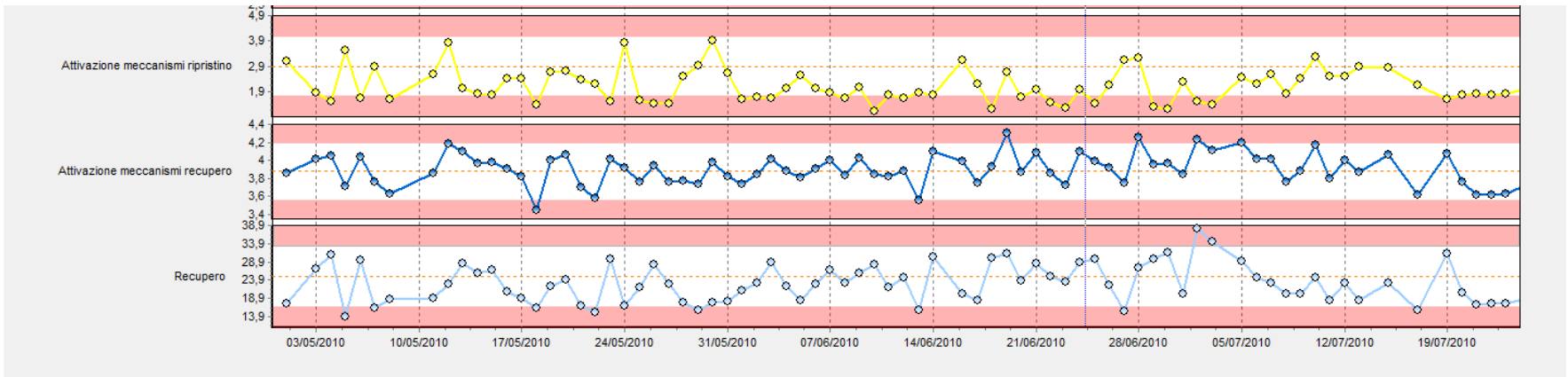
What can we read



It is usual to see the alternate activation of the two systems because the restore of the internal balance (called Homeostasis), follows a dynamic opposition of two physiological processes.

As an example, if the response to a stress stimuli (Sympathetic) persists within the red zone of hyper activation and the Parasympathetic persists within the lower zone of hypo-activation, this could be a relevant signal of high strain.

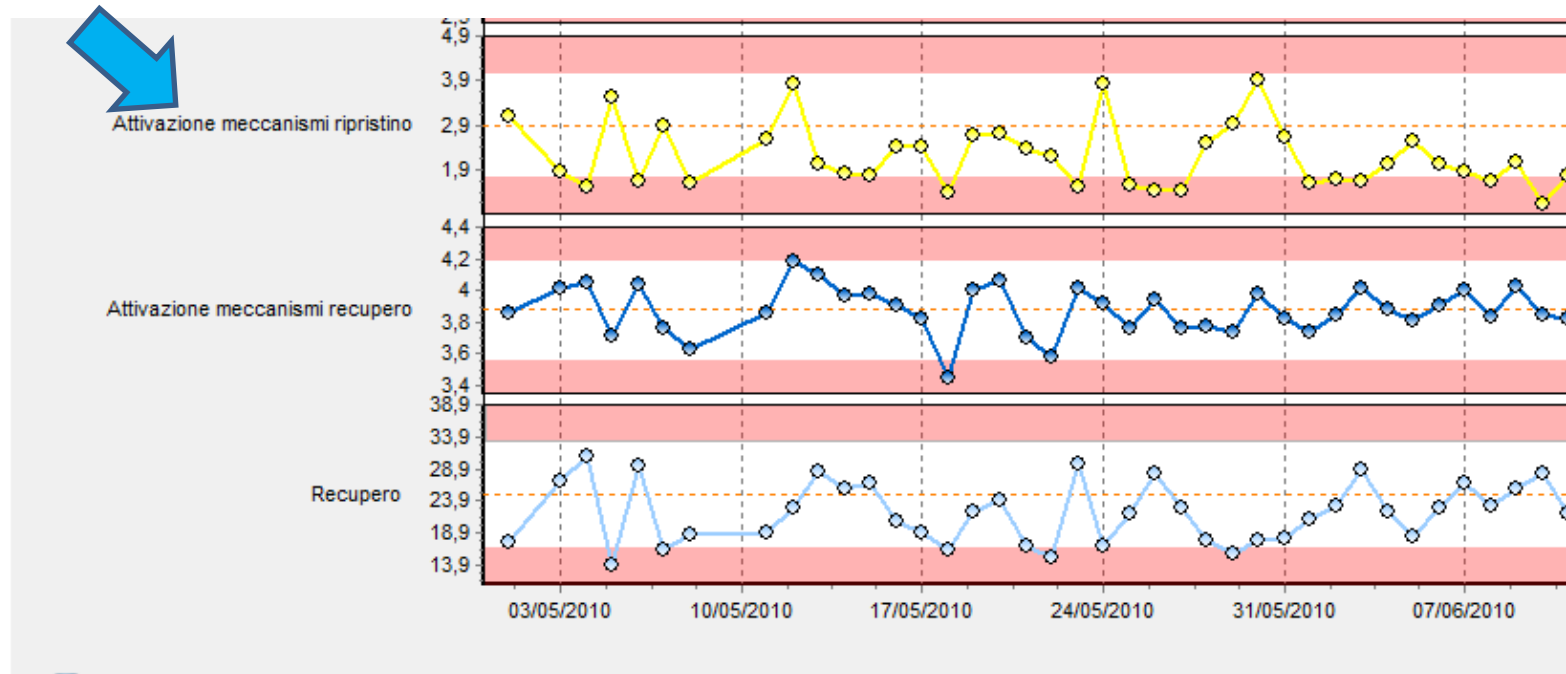
What can we read



Last three parameters refers to the Internal balance Recovery (homeostasis):

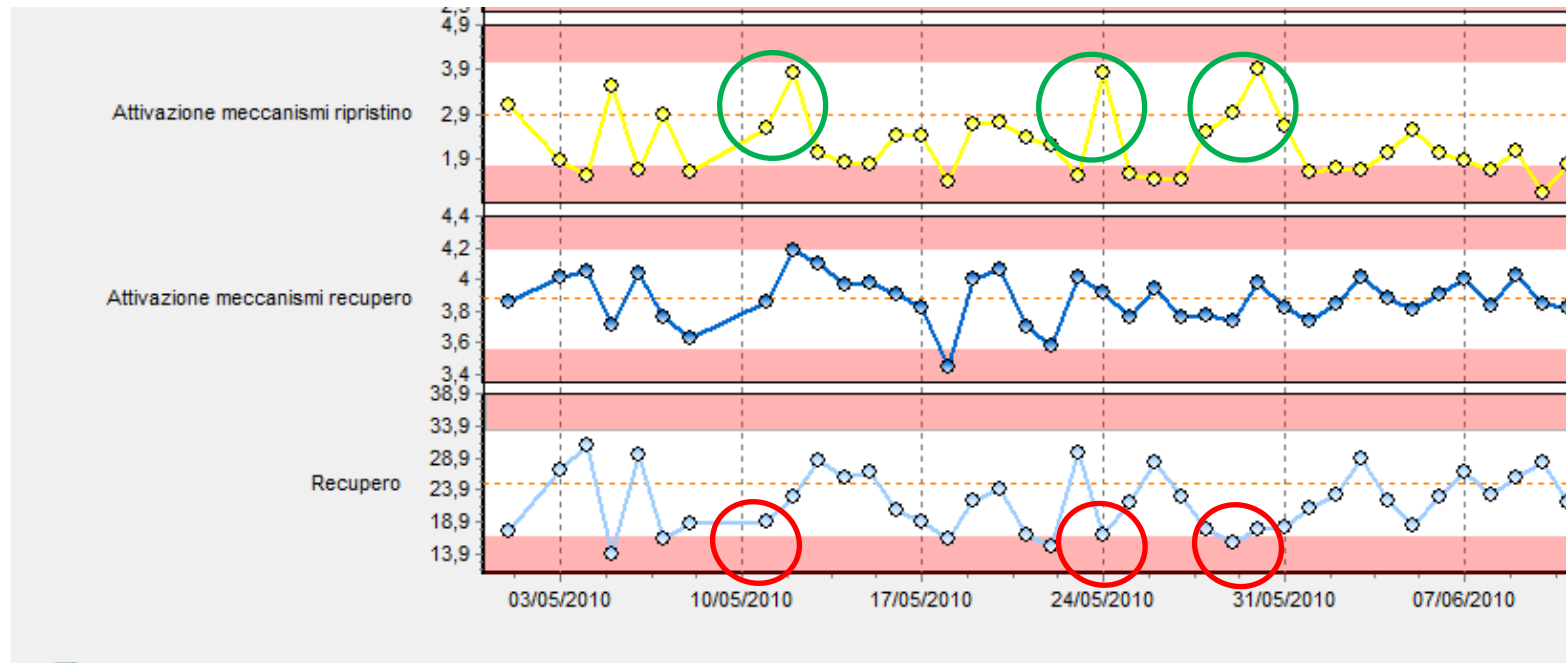
- Activation restoration mechanisms
- Activation recovery mechanisms
- Recovery

What can we read



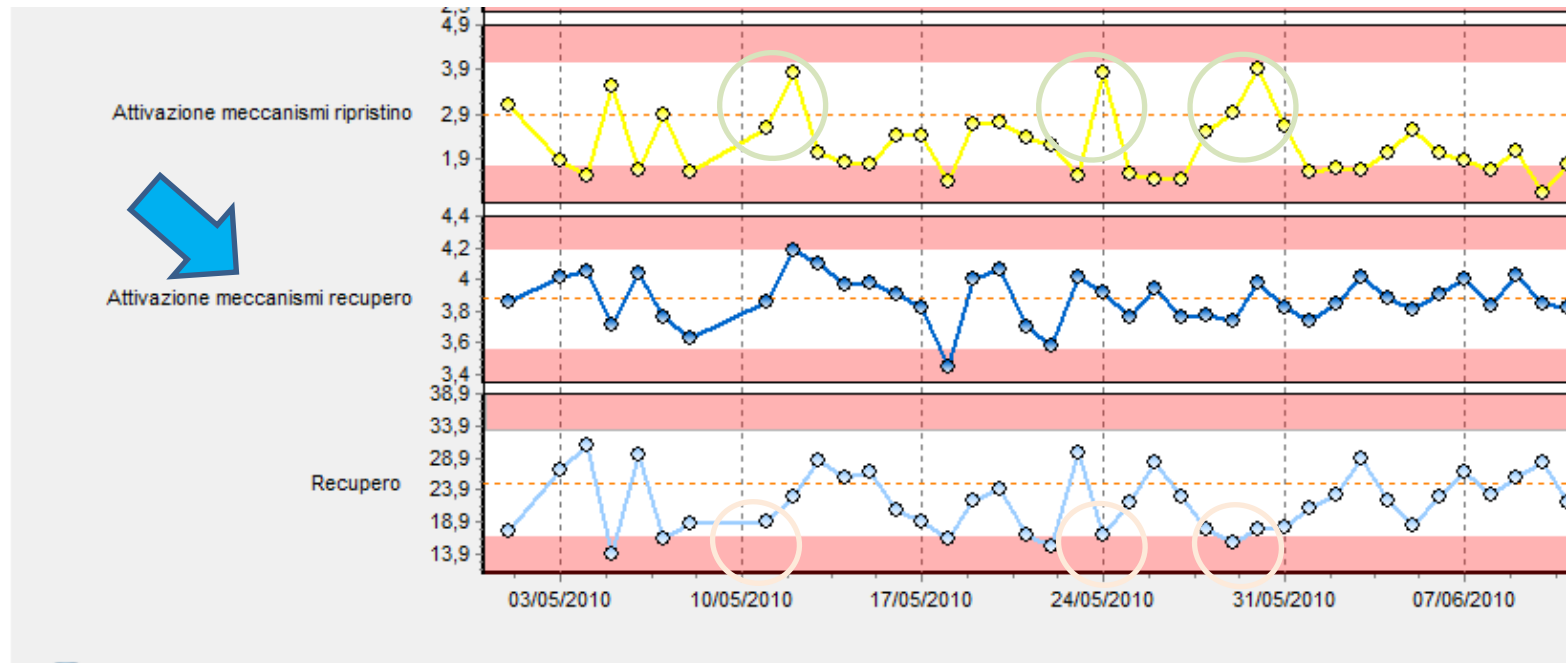
Restoration mechanisms had to be activated as soon as the recovery is low, due to strain.

What can we read



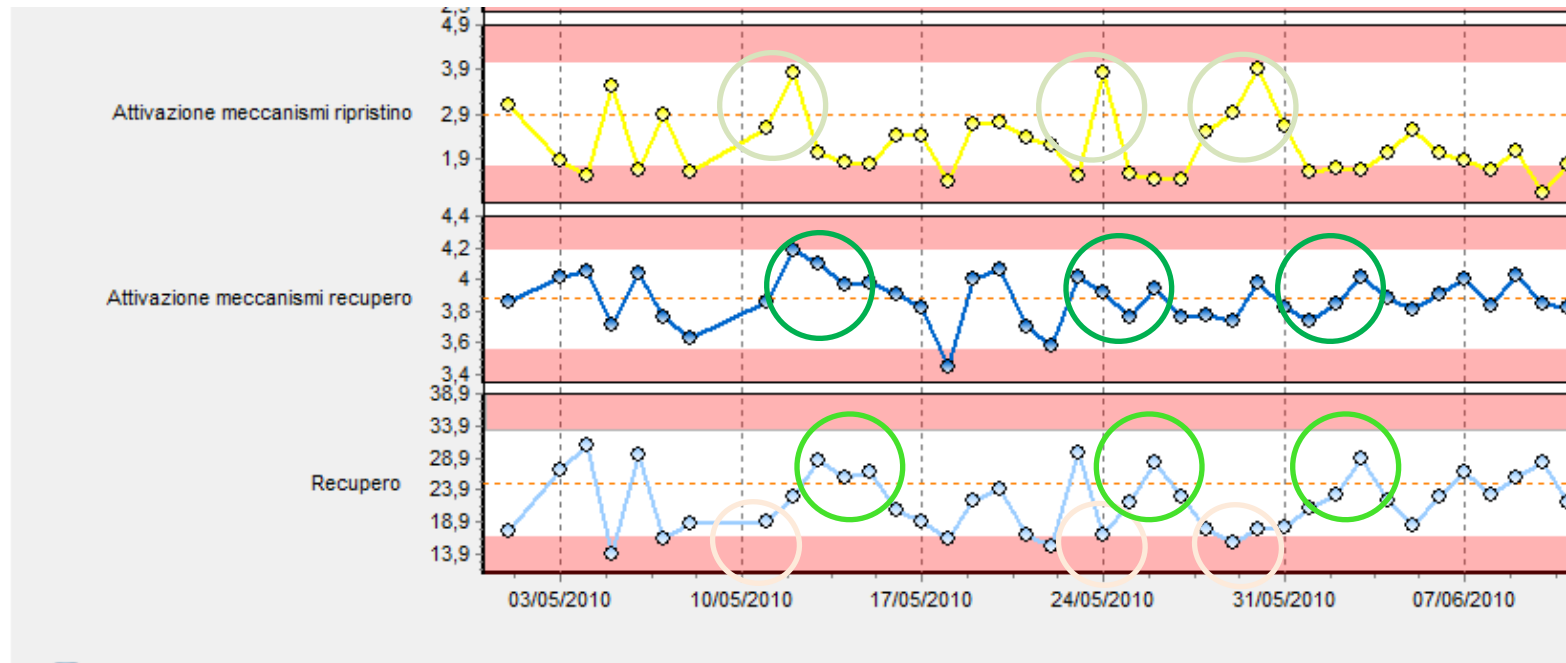
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What can we read



Accordingly, recovery mechanisms are activated to enable the recover itself.

What can we read



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Hosand Recovery Valuation

An advanced graduation of the workload becomes a prosecutable target



Hosand Recovery Valuation

An advanced graduation of the workload becomes a prosecutable target

Please note: following examples are intended to give a rough idea of evaluation principle. They don't represent all possible cases.



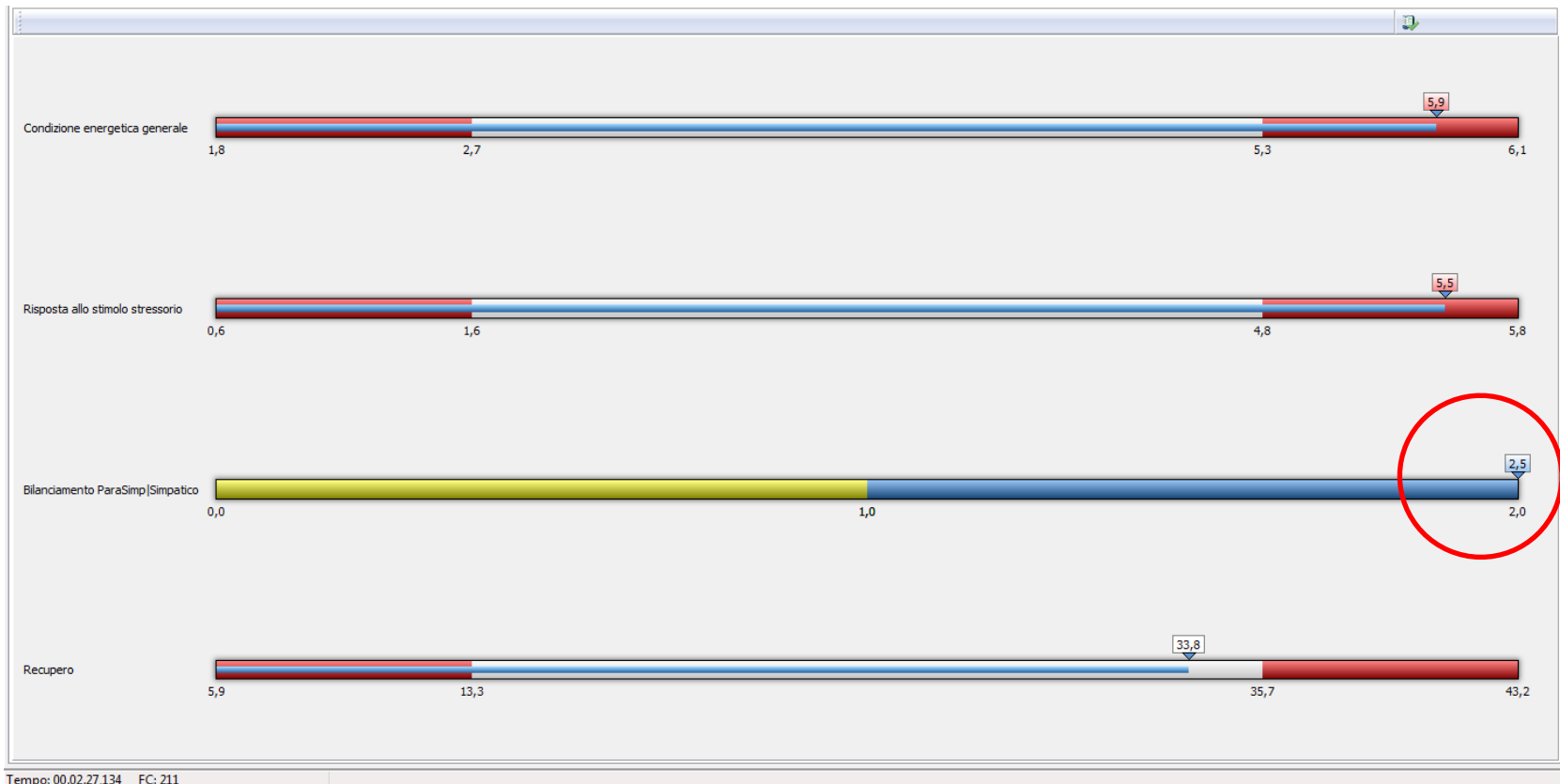
Example 1



The athlete has fully recovered. He is in a status of super-compensation that lets him train intensely.



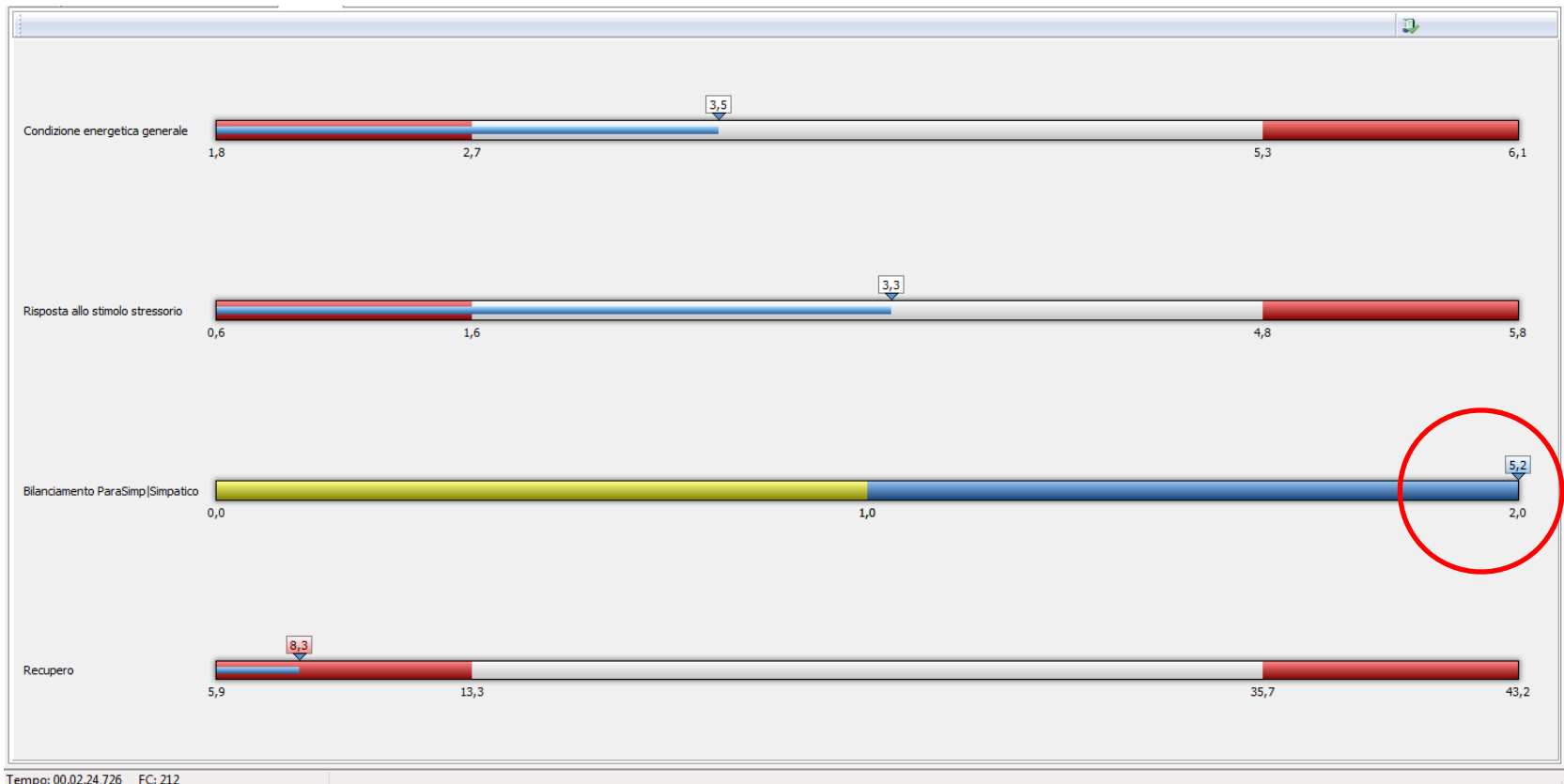
Example 2



The athlete is recovering well but all mechanisms of homeostasis restore are still activated. This case requires a training session of medium intensity.



Example 3



The athlete has not yet recovered but homeostasis mechanisms have been activated: a relieve training is recommended



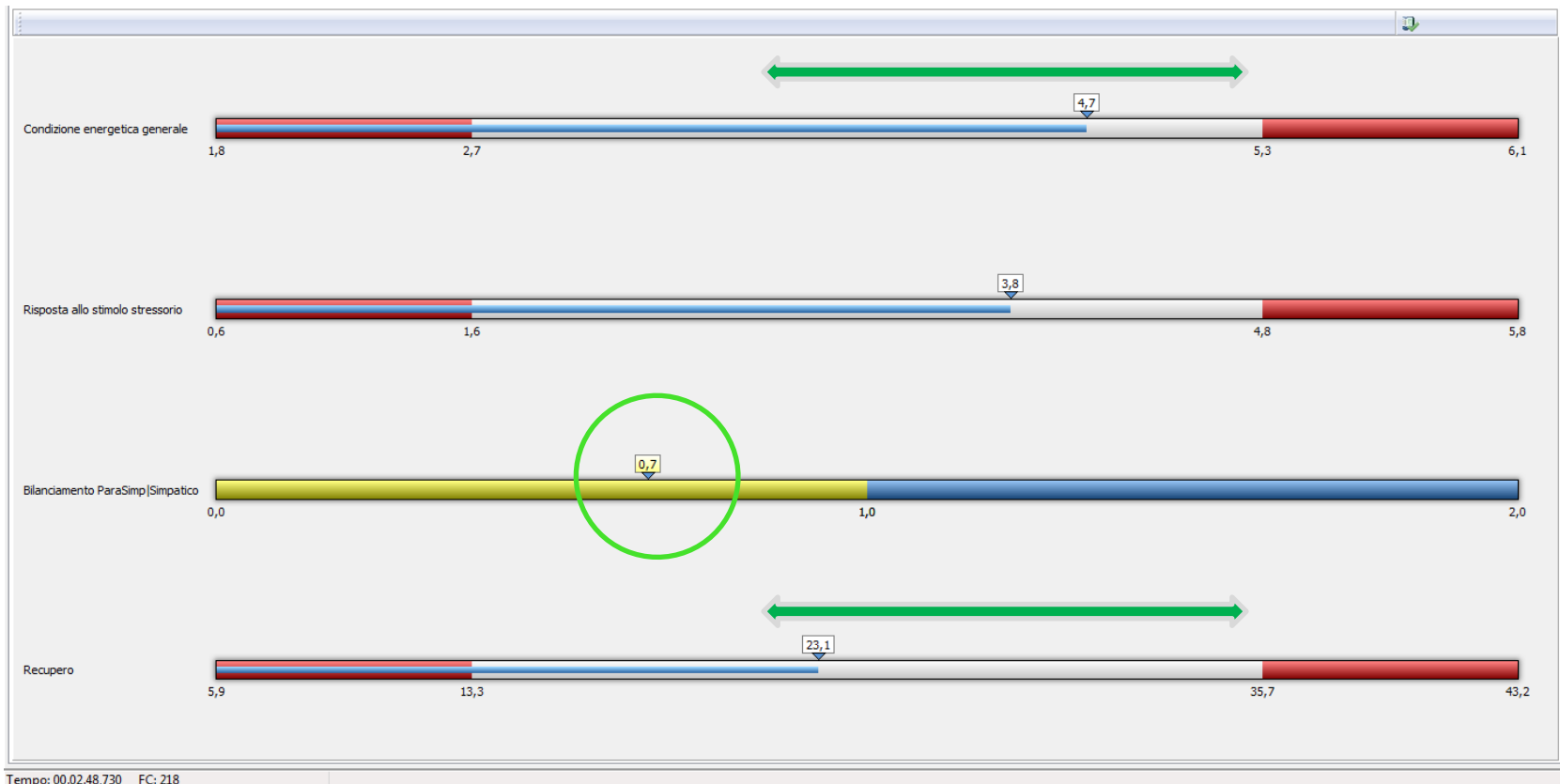
Example 4



The athlete is very tired: in this case, rest is recommended.



Example 5



When General Energetic Condition and Recovery levels are in the middle-upper part of the balance bar and the balance is in the yellow zone, then a medium-high intensity training can be defined accordingly.



Hosand **T**echnologies **S**rl

