

Module 1
Respiratory Mediated Autonomic De-Escalation
(RMADE)

Overview:

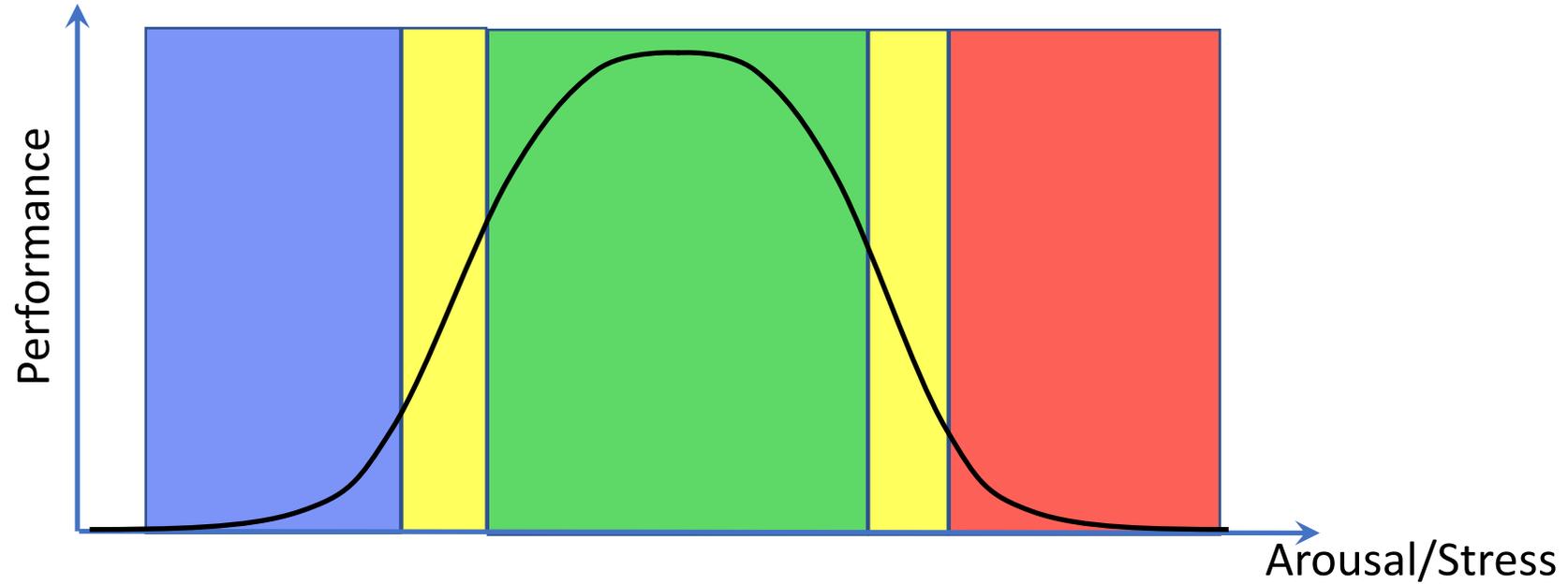
- I. Educative component
- II. Basic respiratory training tool
- III. Respiratory Exercises
- IV. Evaluation, conclusions and homework

Total time – 45 min

Comment: ID and date to be entered manually

I. Educative component (5 min)

How performance related to arousal?



Blue - poor performance due to low arousal

Yellow - suboptimal performance

Green - optimal performance

Red - poor performance due to hyperarousal – “**danger zone**”

Why is it important to maintain self-awareness?

- To recognize when you are in the “mental danger zone”;
- To get out of it;
- To avoid it.

Why “mental danger zone” is actually dangerous:

- It affects attention (eg. tunnel vision);
- It affects decision-making;
- It affects the accuracy of motor performance (eg. shaking);
- It causes inadequate body responses that interfere with performance
- if extended beyond acute stress period, it affects mental health

How can you detect “mental danger zone”? - By self-monitoring:

- Increased heart rate
- Increased respiratory rate.
- Yawning
- Increased sweating
- Shaking
- Nausea

All these stress markers change together in a pattern. The best “summary” marker of this pattern is breathing.

How can you get out of “mental danger zone”?

The only one biological change that is under our conscious control is respiration.

Respiration is also easy to focus on.

So respiration is good and useful for both detecting whether you’ve entered “mental danger zone”, and to get out of it.

TWO CRITICAL ELEMENTS:

I. Self-diagnostics - WATCH YOUR BREATH: Is it too fast?

II. Intervention CONTROL YOUR BREATH

Why controlled respiration?

There is a well established bi-directional link between emotions and respiration.

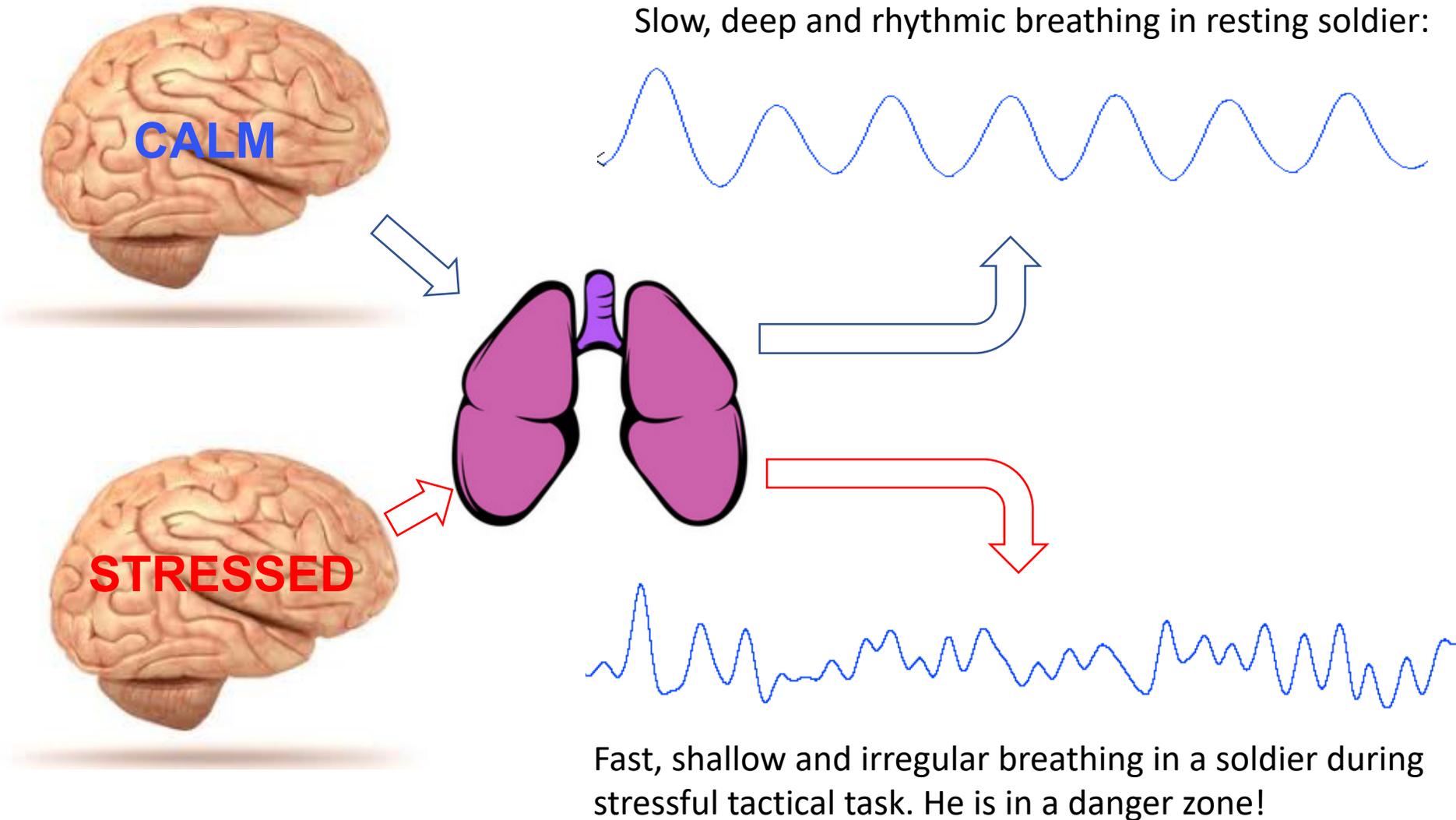
Stress results in rapid, irregular and shallow breathing that by itself is not helpful or preparing body to action.

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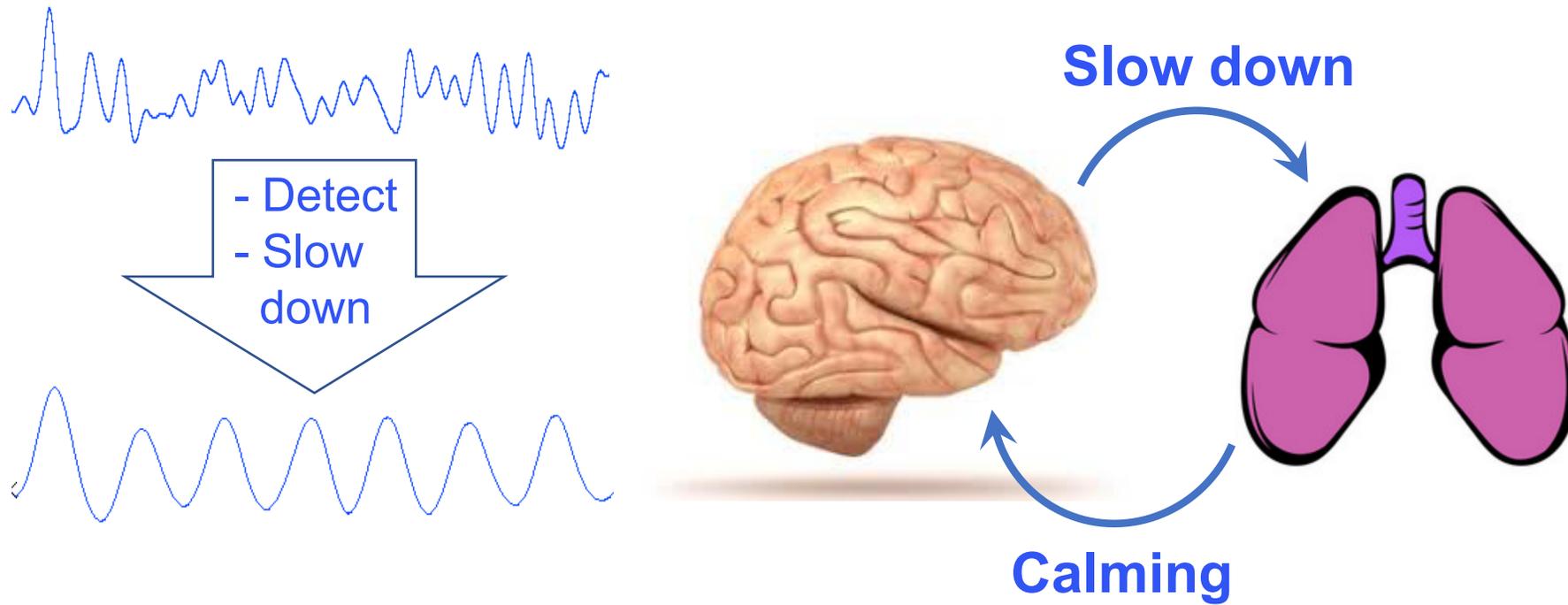
On the other hand, it is well known that “taking a breath” has calming effect on the mind, helps focusing and concentration. Regular controlled breathing is a well established technique to improve performance. While known from ancient times as a part of different forms of martial arts and meditations, this technique gained respect in the recent years in military context; it is known as “tactical breathing”. During critical situations, it allows you to rapidly regain control of you mind and body.

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By focusing attention on your breathing, you can detect whether you are in the mental danger zone:

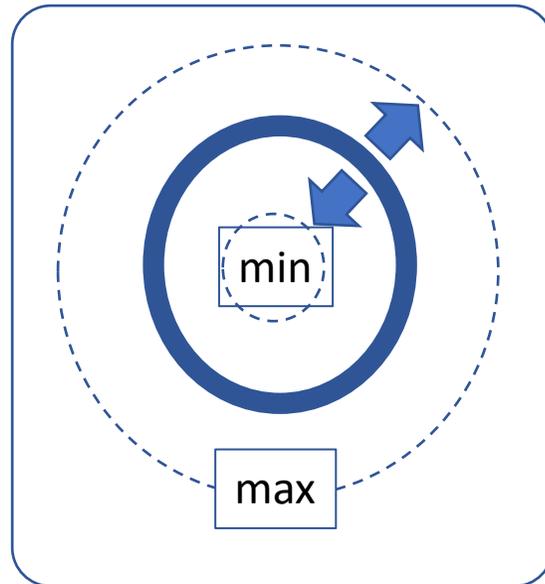


By consciously slowing down your breathing, you can return your mind to a calmer and stable state:

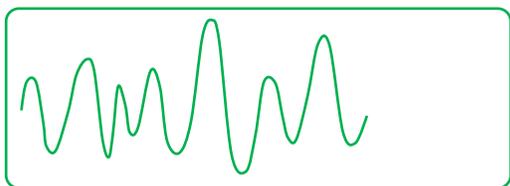
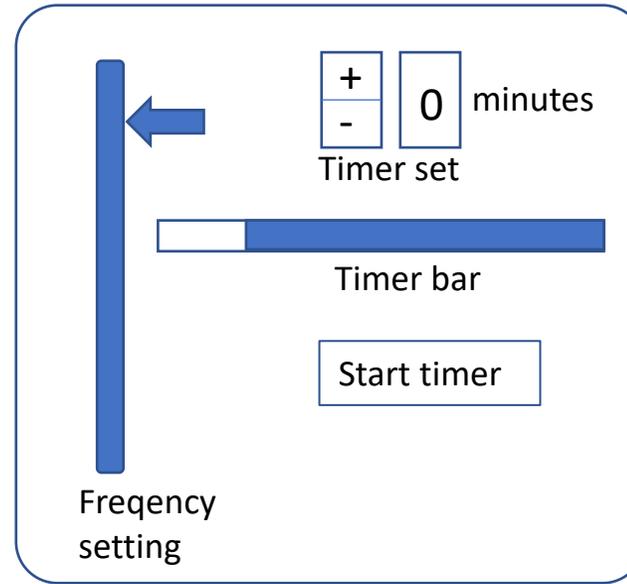


II. Basic respiratory training tool

Pacing tool



Controls

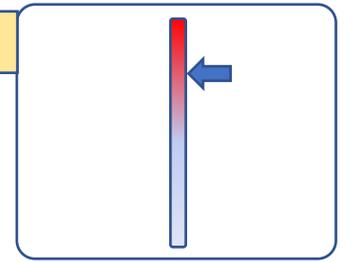


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Datastream and Respiratory Rate from EquiVital

III. Respiratory Exercises

Indicate your current stress level



Stress-meter

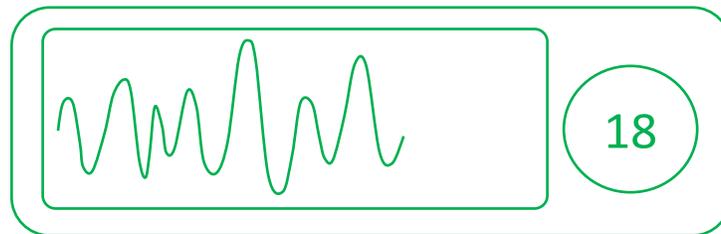
Ex. 1. Basic respiratory awareness (2 min)

Put left arm on your belly, breath as usually
Focus, make 10 breaths
Make a deep breath
Repeat

Comment: We'll measure RespR during educative part, and compare it to RR during these Ex's. This will answer the question: does focusing on respiration moves RR down?

Ex. 2. Basic respiratory awareness with biofeedback (2 min)

Focus, make 10 breaths
Make a deep breath
Repeat

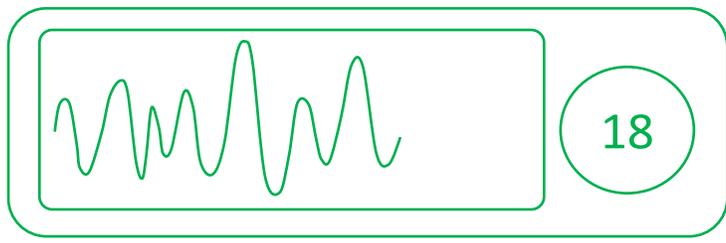
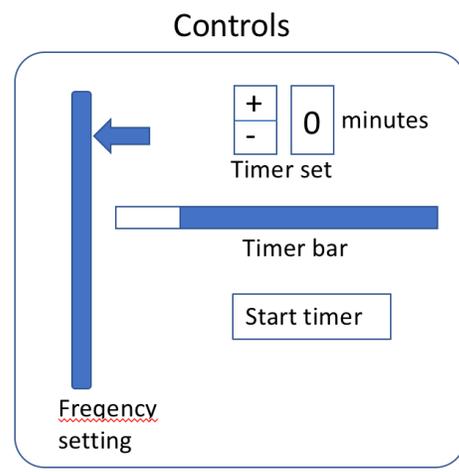
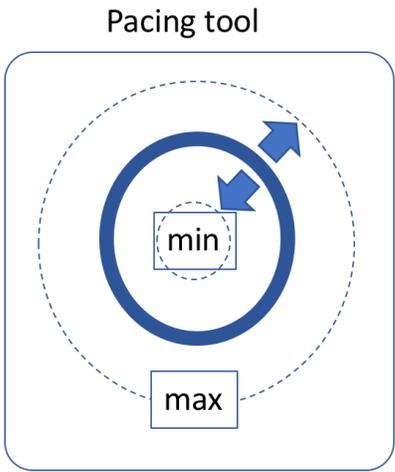


Ex. 3. Controlled breathing/detecting lowest comfortable rate (15)

- Focus on your abdomen
- Adjust the frequency of circle movements so it expands and contracts at a frequency that is most comfortable for you.
- Set the timer and keep breathing for 2 min
- Reduce breathing frequency by 1 unit
- Keep breathing for 2 min
- Rate comfortable Y/N
- Repeat until you feel uncomfortable

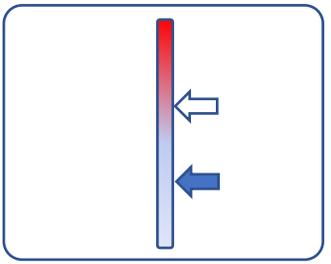


First make them breathing comfortably
CONTROL FOR ACCURACY IN FOLLOWING



You lowest comfortable (LCRR) RR is XX cpm

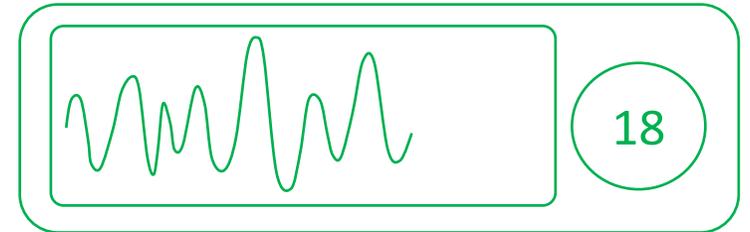
Comment: this is to determine/prove that respir exercises moves stress level down



Stress-meter

Ex 4. Self-controlled breathing with biofeedback (8 min)

- Focus on your abdomen
- Breath at your normal rate – 2 min
- Breath at around your target LCRR - 2 r
- Repeat



Comment: This exercise will be repeated as homework using MyCalmBeat or Spire.

Ex 5. Self-controlled breathing without biofeedback (8 min)

- Focus on your abdomen
- Breathe at your normal rate – 2 min
- Breathe at around your target LCRR - 2 r
- Repeat



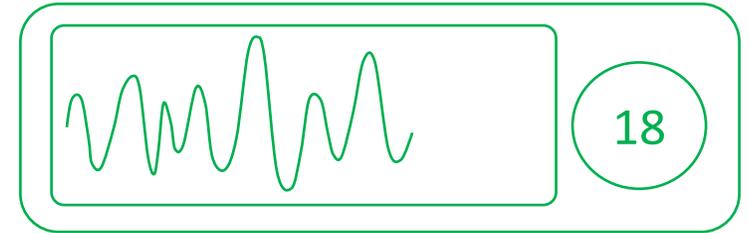
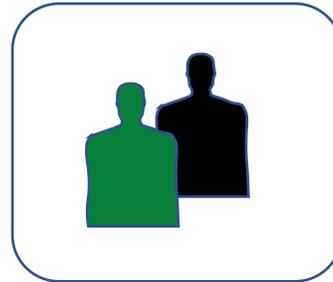
Timer bar

Start timer

Feedback: well done, you were in control;
OR
Your breathing was too fast/too slow; repeat

Ex 6. Self-controlled breathing with distractor and biofeedback (5 min)

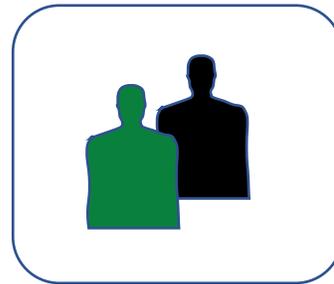
- Conduct the task while paying attention to your breathing



(Options for the task: Stroop, Bohemia shooting range, MAT;
NB: The task here is to OBSERVE, not CONTROL breathing)

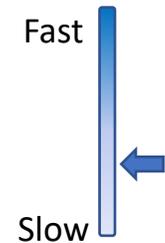
Ex. 7. Self-controlled breathing with distractor and without biofeedback (5 min)

- Conduct the task while paying attention to your breathing



What was you breathing during the exercise?

Feedback: correct OR incorrect, repeat



Comment: Exercises C, E and F to be repeated in every module.

IV. Conclusions, homework and evaluation

Conclusions: In this session you've learned:

What is mental danger zone

Why it is important to identify it

How to maintain awareness of your body responses

That controlled breathing reduces your stress level

Homework:

Practice controlled breathing twice daily for 10 min. Try to maintain your respiratory rate at target of XX cpm using Spire.

Evaluation:

Please rate your experience

Strongly disagree Disagree Neutral Agree Strongly agree

The information from educative part useful

The instruction were clear

The instructions were easy to follow

I acquired new skills for self-control

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