

# Controlled Response (CR)



*“Maximize your output”*

**Warning:**

For maximum effect, these strategies are best used in combination with Mind Tactics, Performance-Based Nutrition, Recharge, Primal Fitness, Purpose, and The Code Modules.



## Controlled Response (CR) Module

### Introduction:

The human body’s potential to optimize its internal resources enables it to accomplish incredible feats—from lifting a great amount of weight to running long distances. Upon activation, senses become heightened, muscles contract, and key systems engage and accelerate in unison. The body becomes primed for action, with the task at hand dictating the appropriate activation level. The CR Module assists warriors in modulating their body’s fight/flight response system and thereby enables them to optimize their internal resources to accomplish greater physical feats when needed.

### Description:

The Controlled Response (CR) System within the body is made up of key organs that, when activated, reallocate internal resources to optimize human performance. Breathing and heart rates increase, muscles contract, and blood circulation is redirected. This chain reaction leads to an explosive increase in energy use. Similar to a car, the human body has the capacity to “overdrive” for short durations. Activation is automatic—triggered by a positive threat assessment. Optimal performance is achieved through the ability to modulate within and across various “Zones.” See Table 1 for examples of proper Zone modulation.

**Table 1: Performance Zones and the CR System.** In the White and Green Zones your heart rate, blood pressure, muscle tension, and breathing rate are low while digestion and brain function are high. Typical activities in the White, or “Parked,” Zone are sleeping or reading a book. In the Green, or “Idle,” Zone, activities might include socializing with a friend or just working on a job. In the Yellow and Red Zones, heart rate, blood pressure, muscle tension, and breathing rate are high (and get higher when moving from the yellow to the red zone), whereas digestion and brain function are low. In the Yellow, or “Ready,” Zone you might be on the sideline of combat, such as patrolling. In the Red, “Overdrive,” Zone you are “in the game”—in contact during combat.

	Zone	Heart Rate	Blood Pressure	Muscle Tension	Breathing Rate	Digestion	Brain Function	Zone Activities, e.g.,
	White “Parked”	↓	↓	↓	↓	↑	↑	Sleeping Reading a book
	Green “Idle”	↓	↓	↓	↓	↑	↑	Social with friends Working on job
	Yellow “Ready”	↑	↑	↑	↑	↓	↓	Sideline Combat: Patrolling
	Red “Overdrive”	↑	↑	↑	↑	↓	↓	In the game Combat: Contact

### Zone Modulation:

Optimal performance at any activity can be achieved through proper Zone modulation. For instance, lifting weights calls for activation and then modulation to Yellow or Red Zones due to the need for increased muscle contraction and explosive power. Conversely, initiating and maintaining a restful sleep pattern comes with a decrease in your body’s activation process to within the White Zone.

**Important:** Mastering the ability to modulate to and from Zones is key to performing well at any task—personal and professional. Lack of mastery can be seen in difficulties achieving desired goals and in degraded performance at any level. For instance, the inability to modulate from Red Zone to White Zone can be seen in difficulties falling and staying asleep. Similarly, the ability to control fine motor skills becomes compromised while operating in the Red Zone and can be hazardous for pilots, EOD members, and medical personnel. It can also negatively impact your relationships (more on this later).

## CR Modulation Strategies:

### Strategy #1: State-Awareness Training

Recognize what Zone you are currently operating in. Check your body's state before engaging in any task. The following are examples of what your body should be feeling when in each Zone:

**White:** Muscles relaxed, hands and feet warm, breathing in stomach, mind quiet but active.

**Green:** The proper muscles for a task are being used hands and feet warm, breathing is maintained in your diaphragm, mind feels clear, attention is focused and directed on something, and concentration is good.

**Yellow:** When you move from Green to Yellow, your blood circulation moves from your hands and feet to support increased heart rate, breathing moves to your chest, respiration increases, digestion slows, brain function begins to decline, and thinking becomes difficult.

**Red:** In the Red Zone your muscles are fully engaged for speed and power, heart rate is rapid, breathing is from your chest, digestion is minimal, brain function is at its lowest, and reactions are instinctive.

**Table 2: Examples of well-zoned activities**—in the right Zone for the activity. When parked in the White Zone, examples of appropriate activities include sleeping at bedtime whether you are doing sports, in a combat zone but off duty and at home, listening to relaxing music at home or an athletic activity, and relaxing in bed when in a combat environment. In the Idle, Green Zone, athletics-related activities include socializing or studying a playbook; in a combat environment, playing cards or eating at DFAC; and at home, driving your family to a movie or having a meaningful talk with your spouse. In the Yellow, ready Zone, suitable activities in an athletic environment include getting ready to press weights at the gym or in the huddle at a game; in combat, patrolling or driving in convoy; at home, driving in bad weather conditions. When in overdrive in the Red Zone, examples of appropriate athletics-related activities are lifting weight at the gym or when the ball is snapped at a game; in the combat environment, examples are taking contact or responding to IED; at home, they include running with a partner or wrestling with your kids at the park.

Zone	Athletics	Combat	Home
White "Parked"	Sleeping at bedtime Listening to relaxing music	Sleeping at bedtime Relaxing in bed	Sleeping Listening to relaxing music
Green "Idle"	Socializing with friends Studying playbook	Playing cards Eating at DFAC	Driving family to movie Having a meaningful talk with spouse
Yellow "Ready"	Gym: Ready to press weight Game: In the huddle	Patrolling Driving in convoy	Driving in bad weather conditions
Red "Overdrive"	Gym: Pressing weight Game: Ball snapped	Taking contact Respond to IED	Running with spouse or friend Wrestling with children in the park

**Table 3: Examples of poorly zoned activities**—in the wrong Zone for the activity. You are in the wrong zone for the activity if you are in the White Zone when you are on the line ready to hike the ball (athletics), standing tower guard (combat), or taking your military physical fitness exam (at home). Examples of wrong activities for the Green Zone are: lifting 300 lbs off the bar (athletics), approaching an area known for insurgent attacks (combat), and defending yourself during combatives (at home). You should not be in the Yellow Zone when studying a playbook (athletics), lying down on your cot to sleep (combat), or standing in line at the commissary (at home). And the same goes for being in the Red Zone for these activities: discussing your point of view with your coach (athletics), negotiating with village elders at a meeting (combat), or relaxing at home.

Zone	Athletics	Combat	Home
White "Parked"	On the line ready to hike the ball	Standing tower guard	Taking your military physical fitness exam
Green "Idle"	Lifting 300 lbs off the bar	Approaching an area known for insurgent attacks	Defending yourself during combatives
Yellow "Ready"	Studying playbook	Lying down on cot to sleep	Standing in line at the commissary
Red "Overdrive"	Discussing point of view with coach	Negotiating with village elders at meeting	Relaxing at home

## ***Strategy #2: Recalibration***

Prolonged activation of your “Overdrive” system can disrupt the ability to control activation sequences. Your system becomes extremely sensitive to activation, and any perceived threat, no matter how small, will FULLY engage your “Overdrive” network (e.g., your Zone for a firefight should be different from your Zone for an argument with a colleague or waiting in line at the DFAC). However, continuously activating your “Overdrive” system overrides your ability to tell the difference; the connection between mind and body becomes severed. The human body, like any weapon system, requires regular recalibration to maintain a high level of performance. You can help your body recalibrate through various strategies—some are described below.



### ***Recalibration Method 1: Breathing Retraining***

Practicing diaphragmatic breathing for at least 10 to 15 minutes each day will assist in CR system recalibration. As you become more comfortable breathing with this technique, you will notice improved control over Zone modulation efforts:

Get comfortable and relax your neck and shoulder muscles. Sit or stand.

Place one hand on your upper chest and place the other hand at the bottom of your ribs, just above your waistline. Use your hands to feel the movements as you breathe.

Take a breath in through your nose and feel your hand on your stomach move outward. Do not let your shoulders move up. You should not feel movement of your hand on your chest. Think of expanding your lungs down toward your toes.

Breathe out S-L-O-W-L-Y and gently through your mouth with your lips fixed as if you were going to whistle or blow out a candle. The hand on your stomach moves in as you breathe out. You may need to pull in your stomach muscles at first to help move your diaphragm up. Exhale at least twice as long as you inhale.



### ***Recalibration Method 2: Progressive Muscle Relaxation and Autogenic Training***

Progressive Muscle Relaxation (PMR) and Autogenic Training (AT) can also assist in CR system recalibration efforts and help re-establish the connection between your mind and body. Through daily practice, you can achieve greater control over physical resources and modulate your zone responses, which will improve your performance on and off the battlefield.

**PMR:** PMR involves the systematic manual tensing of muscle groups: Start with the head and work down to the feet. Each contraction and release is paired with “cue” words such as “Calm” and “Tense.” These labels serve to re-educate you to identify various states of activation and refine modulation control. (Note: A PMR script is included in the OSOK Student Handbook.)

**AT:** Upon re-establishing/refining your mind/body connection, AT removes the need for manual tensing and relaxing; rather, this will be accomplished using only verbal cues and imagery. AT is covered in the Mind Tactics module.

## ***Strategy #3: The Relaxation Response***

Your body’s natural state of relaxation is the opposite of the fight-or-flight response. You can activate the relaxation response in your body by following Dr. Herbert Benson’s simple steps<sup>1</sup>:

1. Sit quietly in a comfortable position and close your eyes.
2. Deeply relax all your muscles, beginning at your feet and moving up to your face.
3. Breathe through your nose and become aware of your breathing. As you breathe out, say the word “one” silently to yourself. For example, breathe in...out, “one,” ...in...out, “one,” etc. Breathe easily and naturally.
4. Continue for 10 to 20 minutes, and then sit quietly for several minutes after you finish.

Do not worry about whether you are successful in achieving a deep level of relaxation. Maintain a passive attitude and allow relaxation to occur at its own pace. When distracting thoughts occur, don’t dwell upon them.

**Note:** With practice, your body's ability to relax will happen with less effort. Try practicing the technique once or twice daily, but not within two hours after any meal, since your digestive processes can interfere.

Note: For a more detailed description of how to activate your relaxation response, refer to the OSOK Student Handbook

### ***Additional Strategies***

⇒ **Relationships:** Remaining in your “Overdrive” state can blur and even destroy your ability to communicate. This could significantly hinder your relationships with your unit, your friends, and your family members. The natural stress response of the body that helps you remain hyper-vigilant in battle often takes some time to re-adjust/reset once you are back home or off the range. If you find yourself suppressing your emotions, being more irritable than normal with your loved ones or buddies, and being easily angered or feeling numb, you are not in the right Zone for optimal performance. For strategies on how to boost communication, see the [HPRC's Family & Relationships section](#).



⇒ **Sleep:** Achieving a restful pattern of sleep can help improve control over modulation efforts. Lack of sleep can compromise muscle control and contribute to faulty threat assessments and activation. Lack of sleep also heightens sensitivity to Yellow or Red Zones (see [OSOK's Recharge Module](#) and [HPRC's Sleep Optimization page](#)).



⇒ **Performance-Based Nutrition:** Regular use of stimulants, especially as substitutes for sleep, can distort interpretation of body cues and lead to difficulties in disengaging Overdrive and modulating out of the Red Zone. Nutrition fuels performance, so eating a well-balanced, healthy diet is key to preparing your body to respond optimally (see [HPRC's Nutrition section](#)).



⇒ **Mind Tactics:** The mind is the control center that influences how physical resources are used. Internal thoughts and images can either enhance or detract from your ability to regulate your CR System and control your Zone modulation. Learning how to use these techniques to your advantage can be a significant resource in optimizing your body's response (See [OSOK's Mind Tactics Module](#) and [HPRC's Mind Tactics section](#)).

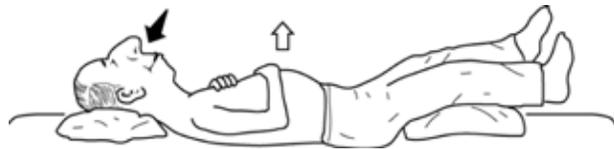


# Controlled Breathing

*“Put the brakes on... Green/White Zone”*

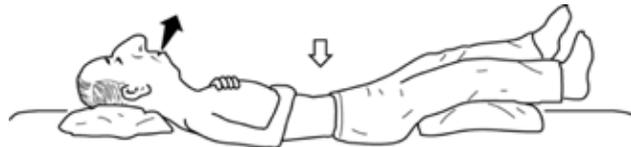
## Steps to Follow:

1. Get comfortable and relax your neck and shoulder muscles. You can lie down, sit, or stand to practice this type of breathing.
2. Place one hand on your upper chest and place the other hand at the bottom of your ribs, just above your waistline. Use your hands to feel the movements as you breathe.
3. Take a breath in through your nose, and feel your hand on your stomach move outward. Do not let your shoulders move up. You should not feel movement of your hand on your chest. Think of expanding your lungs down toward your toes.



4. Breathe out S-L-O-W-L-Y and gently through your mouth with pursed lips, as if you were going to whistle or blow out a candle. The hand on your stomach moves in as you breathe out. You may need to pull in your stomach muscles at first to help move your diaphragm up.

Exhale or breathe out at least twice as long as you inhale or breathe in.



Practice diaphragmatic breathing for at least 10 to 15 minutes each day. Rest as needed between breaths. Learning diaphragmatic breathing takes patience and practice. As you become more comfortable breathing with this technique, you will notice that you will be using it all the time. It is the natural way to breathe.

# Progressive Muscle Relaxation (PMR)

*“Recalibrate your mind and body and boost your performance”*

With constant activation of your Controlled Response (CR) System (Overdrive, aka Redline), the connection between mind and body can become severed, as evidenced by increased CR Negligent Discharges (e.g., difficulty falling and staying asleep; anger outbursts) and signs of system burnout (e.g., memory loss, decline in performance, headaches, stomach problems, etc.).

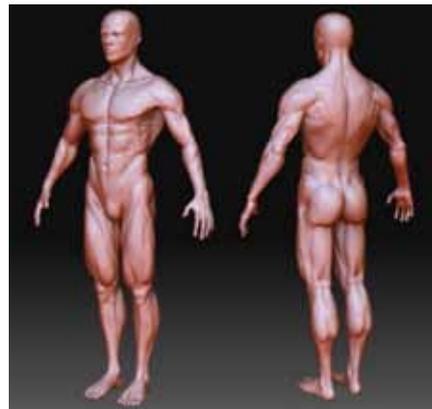
Progressive Muscle Relaxation (PMR) and Autogenic Training (AT) can enable you to recalibrate your CR system and reestablish this connection. Through daily retraining, you can achieve greater control over physical resources, improving performance on and off the battlefield. AT training will be presented in the Mind Tactics section of this handbook.

## Instructions

Step 1: Use PMR CD track daily for 10 sessions (number of sessions may vary depending on the length of time the connection between your mind and body has been severed)

Step 2: Use AT CD track (mind/connection must be first established using PMR training) – SEE Mind Tactics Section

**Important:** Must be used with Controlled Breathing strategies (stomach breathing)



## PMR Script

I would like for you to settle back and let go for the next few minutes. Gently close your eyes and take a deep breath in filling your lungs and stomach with air. Slowly exhale...Again, take a deep breath in...and slowly exhale...

Now, whenever you exhale, allow yourself to drift down into a deeper state of relaxation.

Just let yourself go with each exhale...Your whole body may begins to feel heavy and warm, but very comfortable...Continue to let go and feel your whole body begin to sink deeper and deeper into your chair.

Allow any thoughts that come to your mind to go freely without judging them. Enjoy the quiet and slowly return your attention to your breathing...your mind becoming calmer with each breath.

When I tell you to tighten one part of your body, try to leave every other part limp. If there is a part of your body that is in pain or injured, do not tense that part of the body when we come to it.

Now, keeping the rest of your body relaxed, I want you to wrinkle up your forehead as tightly as you can. Do you feel the muscles in your forehead activate? Now hold it, hold it...and relax...let go and feel the tension dissolve. Feel the difference between the two...

Close your eyes as tightly as you can, make them tighter and tighter. Hold the tension around your eyes...hold it...and now relax and let go, and feel your eye muscles become softer and more relaxed...

Now think of the muscles in your cheeks, and open your mouth as wide as you can. Feel the tension build in your jaw muscles...hold it, hold it...and relax, feeling the tension in your muscles dissolve...

Now place your chin into your chest, pressing down, feel your neck muscles activate. Feel the growing pressure...hold it...as you exhale, let it go...feel your muscles go limp...

Let's move on to your chest. Begin by taking a deep breath that totally fills your lungs. As you hold the air, notice the tension in and around your rib cage...hold it, hold it...now exhale and let the tension dissolve. Filling your stomach with air, notice how you feel more relaxed every time you exhale.

I now want you to arch your back up as if you had a pillow under the lower part of your back. Feel the muscles activate along both sides of your spine...hold that position, hold it...and as you exhale, let that part of your body go limp...

Now shrug your shoulders as if you're trying to touch your ears...hold it, hold it...and as you breathe out, relax and let your muscle go limp...Notice the difference between tension and relaxation.

Clenching your fists, bring your arms into your side as if you were doing a bicep curl. Feel your arm muscles activate...now hold it, hold it...and as you exhale, let your arms go. Feel your muscles relax...

Next tighten up your abdominal muscles and feel the tension build around your stomach and lower back...hold it, hold it...and as you breathe out, let your muscles go limp. Feel as the muscles in your stomach deactivate and the tension that was in your stomach is replaced with relaxation.

Now I want you to tense all of the muscles in your legs by pulling your toes up and back into your shins. Feel the tension build in these areas...hold it, hold it...now let go and feel the tension in these areas dissolve.

Let go of all the tension in your legs and anywhere else in your body, allow it to flow out, allow your body to relax more and more. With every breath your body becomes more and more relaxed. Concentrate on the differences you have been experiencing between tension and relaxation.

Continue to scan your body for any activated muscles. If you find any, tense them, and as you exhale let the tension dissolve.

# Controlled Response (CR) System (Part I)



*The human body's potential to maximize internal resources enables it to accomplish incredible feats. From lifting a great amount of weight to running long distances. Upon activation senses become heightened, muscles contract, and key systems engage and accelerate in unison. The body becomes primed for action with the task at hand dictating the appropriate activation level. Learn how to achieve optimal performance by mastering this process.*

The controlled response system is made up key organs that when activated reallocate resources to maximize human performance. Breathing and heart rate increases, muscles contract, and blood circulation is redirected. The chain reaction leads to an explosive increase in energy enabling you to overcome any threat. Similar to a car, the human body too has the capacity to enter an "overdrive" state. Like professional athletes warriors on the front lines are aware of the importance of this primal human mechanism and have long attempted to harness its power to enhance human performance. Activation is automatic, triggered by a positive threat assessment, however, deactivation at times must be initiated manually. Warrior's ability to regulate this process is the key optimal performance in/out of the battlefield.

Upon returning from the wire warriors must be able to disengage their "overdrive" system to avoid prolonged activation and possible burnout. Like a car, the human body and its organs have a recommended operating level and at times can exceed this level for short durations. Inability over time to disengage this system, however, can lead to decreased performance and the following:

- Difficulty problem solving
- Restlessness
- Headaches
- Sleep problems
- Stomach problems
- Emotional outbursts
- Increased mistakes
- Concentration/memory problems
- Loss of appetite
- Fatigue and loss of strength
- Irritability and anger
- Slowed reaction time

Some tips to assist in regulating your "overdrive" system in the combat environment:

- 1) **Controlled Breathing** – Chest breathing is a sign of activation. Move breathing to stomach (4-5 seconds in/out).
- 2) **Fitness (regularly)** – will assist with deactivation process especially post-missions
- 3) **Reduce Caffeine** – will initially provide energy, but regular use will lead to amplifying & maintaining the activation cycle.
- 4) **Recharge** – Chronic insomnia will degrade control efforts (see Recharge issue).
- 5) **Image Processing** – Unprocessed activating images following missions will continue to trigger "overdrive" activation (e.g. Free-Range Journaling (FRJ) - uncensored journaling for a prescribed time, etc.).
- 6) **Performance Nutrition** – Even if you're not hungry...eat. Skipping meals will relay a message to your body of a potential threat. The result is a retention of calories, storage of fat, and activation of "overdrive" system.
- 7) Etc. Etc. (see your OC for a comprehensive analysis and additional strategies)

## PCC/PCI Disengaged Overdrive System

<b>Aware</b>	Know when you're in "overdrive." Check breathing rate, muscle tension, heart rate, etc.
<b>Breathe</b>	Breath should be from stomach. Pace should be 4-5 seconds inhalation/exhalation.
<b>Muscles</b>	Muscles should be relaxed.
<b>Mind</b>	Mind should be empty and/or free of activating images.
<b>Temp</b>	Hands and feet should be warm (blood in extremities)
<b>Stomach</b>	Hungry if you haven't eaten.
<b>Mind</b>	Easy to think/problem solve
<b>Sleep</b>	Easy to fall/stay asleep

