

ENERGY SYSTEM TRAINING

HEALTH *VS.* PERFORMANCE

OPEX

There's a big difference between working hard and working smart. Just because a conditioning workout is making your clients sweat, doesn't mean it's actually improving specific fitness characteristics.

So how do you design conditioning programs with confidence?

When you follow the **OPEX Method** of Energy System Training, you remove the guesswork from your program designs. Read on and learn how to apply this method to get the results you're looking for—whether that's maximizing performance or improving health and longevity.

WHAT IS ENERGY SYSTEM TRAINING?

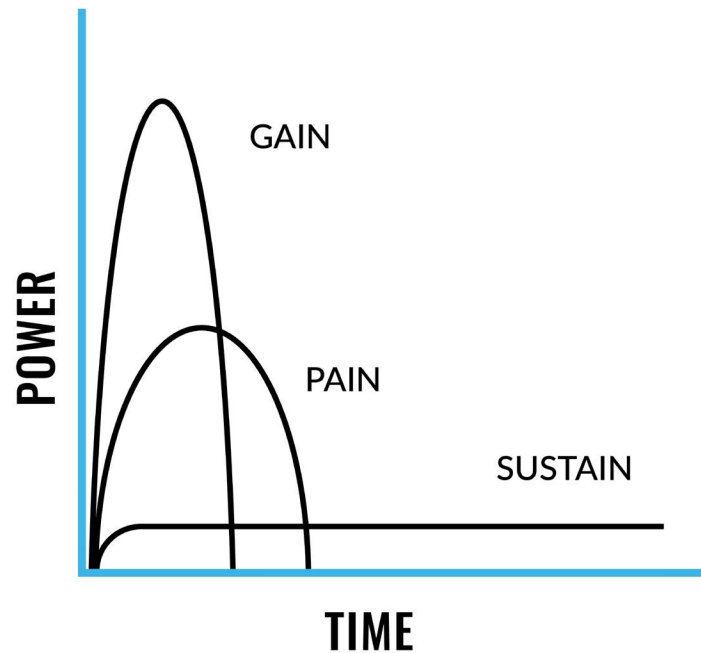
The body has three main energy systems, and Energy System Training is designed to improve each of these.

These are commonly known as the anaerobic alactic, the anaerobic lactic, and the aerobic energy systems.

To keep it simple we refer to these energy systems as **OPEX Gain, Pain, and Sustain**.

THE THREE MAIN ENERGY SYSTEMS	OPEX GAIN CREATINE PHOSPHATE	OPEX PAIN GLYCOLYTIC	OPEX SUSTAIN AEROBIC
OPEX GAIN CREATINE PHOSPHATE	<p>OPEX GAIN (Creatine phosphate) training, also called alactic training, includes weight training, resistance training, and short, intense sprints.</p> <p>EXAMPLES OF OPEX GAIN TRAINING: Back Squat, Weighted Pull-up, Bench Press, Deadlift, 10 Second Sprint All Out</p>	<p>The OPEX PAIN system is activated once the OPEX GAIN system has been depleted, using glucose as its primary source of fuel. We refer to this system as OPEX PAIN because of the presence of lactate and the pain that is felt in the muscles when working this energy system. OPEX PAIN is an unsustainable level of creating energy during work.</p> <p>EXAMPLES OF OPEX PAIN TRAINING: 3 Minute AMRAP repeats of thrusters and pull-ups at an unsustainable effort, 30 second AirBike sprint or 500m row intervals performed at an unsustainable effort but with adequate rest for repeatability.</p>	<p>The OPEX SUSTAIN energy system uses oxygen as its primary source of fuel. The term OPEX SUSTAIN is used because the effort allows for the work to be repeated without much rest.</p> <p>EXAMPLES OF OPEX SUSTAIN TRAINING: 30 Minute AirBike, 30 second Airbike intervals or 500m row intervals at equal work:rest, all performed at a sustainable pace and with repeatability.</p>

It is important to note that it is impossible to isolate just one energy system in training. In fact, all three systems are always at work, but with one system taking a dominant role in each specific kind of training.



THE BENEFITS OF OPEX GAIN TRAINING

The main benefit of training the Gain system is mechanical adaptation. When performing this type of training the muscle breaks down. As the muscle recovers, it adapts to the training and with that adaptation creates improvements in the muscles' cross-sectional characteristics, including hypertrophy (muscle growth) and motor control (movement efficiency). Other benefits of Gain training include improved coordination and hormonal effects resulting in increased ability to recover, vitality, and longevity.

WHO SHOULD TRAIN OPEX GAIN?

Any client can benefit from personalized Gain training, whether they are training for health or performance. The most effective Gain program is determined by each client's training age, along with their capabilities and function.

Beginner clients will focus on motor control activities. Intermediate clients can train strength endurance and motor control, and advanced clients can train maximal contractions, strength endurance, and motor control.

It's easy to think of Gain training as something that can be templated with a standard strength progression. However, the most effective Gain programs are tailored to the client's training age and capabilities. **Learn more about how training age impacts program design in this [free LearnRx video](#).**

Along with traditional resistance and strength training, the Gain energy system can also be trained with high-power, cyclical efforts such as 10-second sprints on an Assault Bike.

Sample Resistance Gain Program:

- A. Power Clean, 1.1 reps x 5 sets; 2 minutes rest
- B. Deadlift @20X0, 2 reps x 5 sets; 3-4 minutes rest
- C1. Kettlebell Single Leg Single Arm Deadlift @30X1, 6-8 reps x 2-3 sets; 90 seconds rest after each side
- C2. Weighted Extended Side Plank; 30-45 seconds x 2-3 sets, 90 seconds rest after each side

Sample Cyclical Gain Program:

- A. Assault Bike
- 10 sec @ very hard effort
- Rest 2:30 minutes
- x 6-8 sets

When implementing OPEX Gain, Pain and Sustain, it is essential to start with a thorough assessment to determine capabilities, and individualize your designs based on your client's goals, training history, and function. Learn how to personalize training programs in this [Free Coaching Course](#).

START NOW

THE BENEFITS OF OPEX PAIN TRAINING

There are three main reasons to train OPEX Pain.

Firstly, the intense nature of Pain training can teach the body to adapt to stress.

Secondly, Pain training creates a massive metabolic response, if someone is strong enough to achieve this response. However, this does not necessarily mean long-term positive metabolic effects, as if this type of heightened stress response is overtrained, the stress of being in survival mode can overload the system.

A third reason to train Pain is that it provides a booster effect for power output in people who can initiate the unsustainable work. This means that the creatine-phosphate system and the aerobic system are enhanced by the anaerobic lactic system when it is at near-threshold levels of work. Pain is often anecdotally described as being a helpful booster for people in sport or job-specific environments where the stress is high.

WHO SHOULD TRAIN OPEX PAIN?

Pain training is only appropriate for specific intermediate to advanced clients who are strong enough to express it. 99% of the time it should be reserved for performance-specific goals, and not applied to clients training for health and longevity. While it is tempting to utilize this type of training for clients that have limited time to train because of its short and intense nature, this type of training can detract from longevity and burn clients out quickly.

Sample Pain Program:

5 Sets @ hard effort:
5 Power Clean @ 65% of one rep maximum
6 Bar Facing Burpees
20 Calorie Assault Bike
Rest 6 minutes

With Pain training, it is important to focus on proper execution, where the client is able to maintain pace across all sets. If power output begins to drop then the training session should be discontinued.

THE BENEFITS OF OPEX SUSTAIN TRAINING

Everyone can benefit from Sustain training, whether they are training for health or performance. As highlighted earlier, building the aerobic system has a plethora of benefits and will improve anyone's performance and function in their daily lives or goal-oriented fitness journeys.

How you choose to implement Sustain training will depend on your client's capabilities and goals. For performance goals, the intention will be to reach maximum potential, whereas for health goals, the intention will be sustainability for life.

There are two ways of performing Sustain training: cyclical and mixed modal. Cyclical Sustain training must be progressed through the [Maximum Aerobic Power](#) continuum before implementing mixed modal Sustain training.

Sample Cyclical Sustain Program:

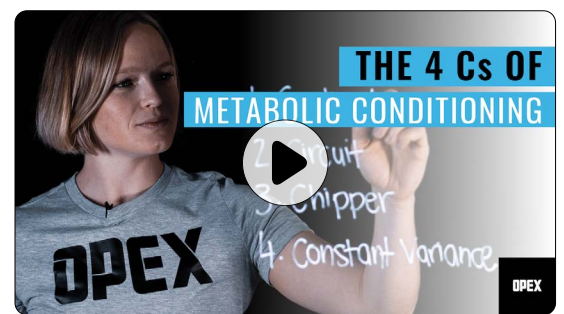
3 Sets:
15 Minute Airbike @ 50 RPM
10 Minutes Rest

Sample Mixed Modal Sustain Program:

3 Sets:
15 Minute AMRAP @ sustained:
5 Push-Ups
8 Ring Rows
10 Calorie Row @ 2:15/500m
10 Minutes Rest

Interested in learning more about designing mixed modal workouts? Take our free [4 Cs of Metabolic Conditioning course](#) and learn how to program OPEX Sustain using our cyclical, circuit, chipper, and constant variance metcon progression.

[START NOW](#)



ENERGY SYSTEM TRAINING FOR HEALTH VS. PERFORMANCE

Now that you understand the basic principles of Energy System Training, it's time to see them applied to two different client goals: health vs. performance. We will illustrate this with two example client avatars.

AVATAR 1: HEALTH

KELLY

- Female
- Age: 42
- Height: 5'5
- Occupation: Engineer

GOALS

- Lose 5-10lb
- Have great strength and fitness to support health and longevity
- Find consistency in training with busy work schedule

OPEX BODY

- Weight: 158lbs
- Body fat: 23%

OPEX MOVE

- Failed scratch with restricted scapular gliding in external rotation
- Hip shift in squat

OPEX WORK

- 10 minute Assault Bike for max calories = **103 calories**

Priorities:

- Implement consistent training schedule with high compliance
- Fix scapular function and gliding with motor control and range of motion work
- Fix hip shift with RNT, motor control, and time under tension & prioritize single leg work

Planning:

- 4 sessions per week
- 2 Gain sessions
- 2 Sustain sessions

Daily Plan:

- Monday: Gain: Full Body Resistance
- Tuesday: Sustain: MAP 7 - cyclical
- Wednesday: Active Recovery
- Thursday: Gain: Full Body Resistance
- Friday: Sustain: MAP 7 - mixed cyclical
- Saturday: Active Recovery
- Sunday: Rest

Monday | Gain: Squat, Horizontal Pull, Bend, Vertical Push, Core (glutes), Core

A1. RNT Goblet Squat @3131, 8 reps x 3 sets; rest 90 seconds

A2. Single Arm Dumbbell Row @20X1, 8 reps x 3 sets; rest 90 seconds after each side

B1. Staggered Stance Dumbbell Romanian Deadlift @30X0, 8 reps x 3 sets; rest 90 seconds after each side

B2. Seated Landmine Press @2012, 8 reps x 3 sets; rest 90 seconds after each side

C1. Cable Hip Abduction @1010, 15 reps x 3 sets; rest 60 seconds

C2. Ring Plank Hold, 60 seconds x 3 sets; rest 60 seconds

Tuesday | Sustain: MAP 7 - cyclical

For Time @ sustained pace

75 cal Assault Bike

Rest 10 minutes

100 cal Row

Rest 10 minutes

75 cal Assault Bike

Wednesday | Active Recovery

30-60 minutes easy outdoor movement (hike, walk, bike, swim)

Thursday | Gain: Bend, Horizontal Push, Squat, Vertical Pull, Core (glutes), Core

A1. Barbell Hip Thrust @20X2, 8 reps x 3 sets; rest 90 seconds

A2. High Incline Single Arm Dumbbell Bench Press @20X1, 8 reps x 3 sets; rest 90 seconds after both arms

B1. Cossack Squat @3010, 16 alt reps x 3 sets; rest 90 seconds

B2. Lat Pulldown @30X1, 8 reps x 3 sets; rest 90 seconds

C1. Single Leg Wall Sit, 20-30 seconds/side x 3 sets; rest 60 seconds after each leg

C2. Weighted Side Plank, 60 seconds/side x 3 sets; rest 60 seconds

Friday | Sustain: MAP 7 - mixed cyclical

10 min AMRAP @ sustained pace

200m Ski Erg

300m Run

400m Row

Rest 10 minutes

x 3 sets

Saturday | Active Recovery

30-60 minutes easy outdoor movement (hike, walk, bike, swim)

Sunday | Rest

AVATAR 2: PERFORMANCE

KATE

- Female
- Age: 26
- Height: 5'7
- Occupation: Writer

OPEX BODY

- **Weight:** 140lbs
- **Body fat:** 18%

OPEX MOVE

- Pass, no obvious movement faults

OPEX WORK

- 10 minute Assault Bike for max calories = **130 calories**

GOALS

- Push the limits in her physical potential for enjoyment and experience

Priorities:

- Increase single leg strength endurance
- Increase strict pull-up volume
- Exposure to OPEX Pain (cyclical) and OPEX Sustain (mixed modal)

Planning:

- 5 sessions per week
- 4 Gain sessions (upper/lower split)
- 2 Sustain sessions (mixed)
- 1 Pain session (cyclical)

Daily Plan:

- Monday: Gain
- Tuesday: Gain + Sustain
- Wednesday: Active Recovery
- Thursday: Gain
- Friday: Sustain
- Saturday: Gain + Pain
- Sunday: Rest

Monday | Gain: Lunge, Bend, Squat, Core

- A. Barbell Reverse Lunge @20X0, 12 alt reps x 4 sets; rest 3 minutes
- B1. Romanian Deadlift @30X0, 8 reps x 3 sets; rest 2 minutes
- B2. Dual Dumbbell Front Squat @20X1, 8 reps x 3 sets; rest 2 minutes
- C. 4 sets
- 12/side Side Plank Rotations @2020
- 24 Alternating V-Ups
- 45 second Wall Sit Marches
- Rest 60 seconds

Tuesday | Gain: Vertical Pull, Horizontal Push | Sustain: MAP 6 (mixed modal)

- A1. Strict Pull-Up @20X0, 5.4.3.2 x 4 sets; rest 20 sec b/t clusters, rest 2 minutes
- A2. Close Grip Bench Press @20X1, 6-5-4-4; rest 2 minutes
- B. 5 min AMRAP @ sustained pace
- 12 cal Assault Bike
- 12 Walking Lunge
- 6 Renegade Row, 25#
- rest 3 min
- x 5 sets

Wednesday | Active Recovery

Thursday | Gain: Bend, Bend, Lunge, Core

- A. Deadlift @30X0, 6-5-4-4; rest 3 minutes
- B1. Weighted Single Leg GHD Hip Extension @20X1, 8 reps/side x 3 sets; rest 2 minutes
- B2. Rear Foot Elevated Split Squat @30X0, 8 reps/side x 3 sets; rest 2 minutes
- C. Ring Plank Hold, 60 sec x 3 sets; rest 90 seconds

Friday | Sustain: MAP 6 (mixed modal)

5 min Clock @ sustained pace
12 Box Jump, Step Down
12 Push-Up
12 Knees to Elbow
Bike Erg for cal in remaining time
Rest 3 minutes
x 5 sets
+
Rest 10 minutes
+
5 min Clock @ sustained pace
8-10-12-14...
Row for cal
Burpees
Rest 3 minutes
x 5 sets

Saturday | Gain: Vertical Push, Vertical Pull, Horizontal Push, Horizontal Pull, AnLP Pain: Anaerobic Lactic Power (cyclical)

A1. Shoulder Press @20X1, 8 reps x 3 sets; rest 2 minutes
A2. Neutral Grip Pull-Up @20X0, AMREP (-2) x 3 sets; rest 2 minutes
B1. Dumbbell Bench Press @20X1, 8 reps x 3 sets; rest 2 minutes
B2. Dumbbell Bent Over Row @30X1, 8 reps x 3 sets; rest 2 minutes
C. 30 second Assault Bike @ hard effort
rest 3:30
x 4 sets
+
rest 8 minutes
x 2 blocks

Sunday | Rest

READY TO BECOME A CCP COACH?

COACHING CERTIFICATE PROGRAM

An OPEX CCP Coach is a trusted fitness advisor and a partner in delivering results to clients. They are leaders on the front lines, making a real difference in the lives of people in their community. Ultimately, what makes OPEX CCP Coaches stand out is their ability to meet their clients where they are at – regardless of age, training history, lifestyle, or goals – and design a comprehensive personalized fitness program.

ARE YOU READY TO BECOME A
LEADING FITNESS PROFESSIONAL?

LEARN MORE

OPEX CCP