



# Interval Training for Every Body

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Building a broad-based offering to attract and retain more members



# It's not just for elite athletes and extreme fitness junkies.

In fact, interval training might just be the most democratic form of exercise on earth.

It can be tailored to fit practically every one of your members' needs. And it dovetails with a broad swath of fitness goals, health requirements and individual lifestyles.

Yet a great many fitness centers cater to only a tiny sliver of the potential market.

This brochure will show you the full extent of your opportunity. It explains how to use this modality's broad-based appeal as a powerful magnet with which to attract and retain more members. And it provides you with the four essential keys to unlocking interval training's full potential.

Once you see the big picture, you'll understand the huge impact it can have on your membership and your profits.

You'll know exactly how to make interval training an indispensable part of your fitness center's offering. Not just for an exclusive few, but for every body.

**DISCOVER THE FOUR ESSENTIAL KEYS**



## KEY #1

# Master the Fundamentals.

### Exactly what is interval training?

It's a form of exercise that typically involves alternating bouts of higher-intensity work and lower-intensity active recovery.

Interval structures can vary significantly, depending on:

- Individual goals
- Preferred utilization of energy
- Intended level of effort

The principle factor of interval routines is the amount of time assigned to work and recovery intervals. This is referred to as the work-to-rest ratio (W/R).

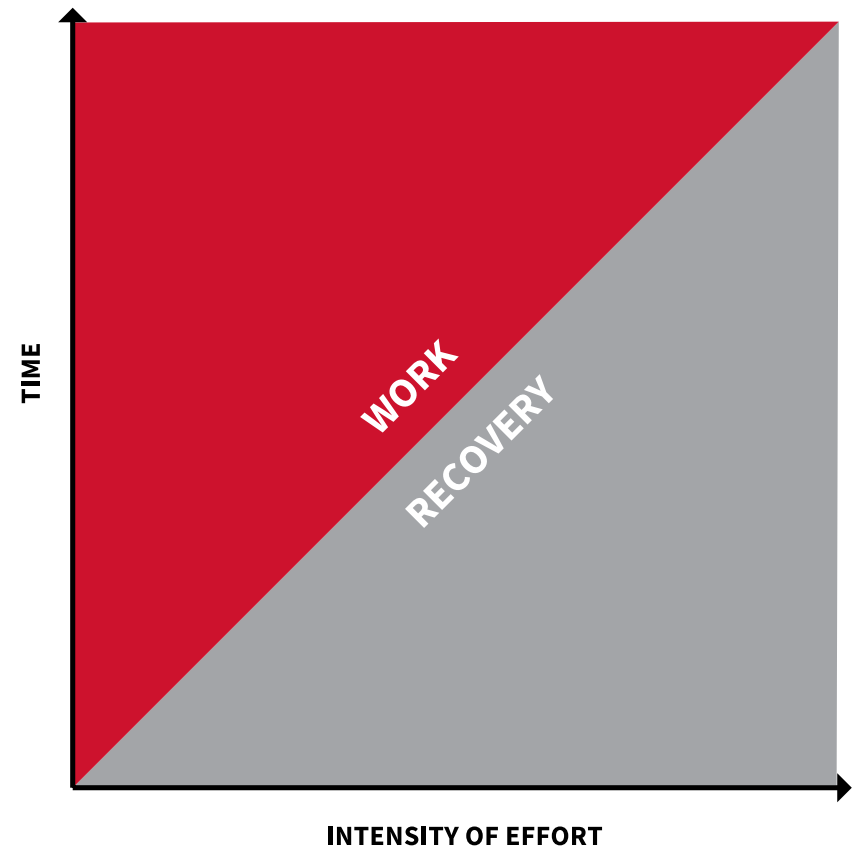
## MYTHBUSTER MOMENT

Contrary to popular opinion, interval training isn't limited to cardiovascular exercises like running, biking and rowing. It can be incorporated into all kinds of activities, even group exercise classes and strength training.

### How much time gets devoted to work versus rest?

That really depends on what an individual wants to accomplish. For instance, if you prefer high-intensity interval training (HIIT), you might go all-out for 30 seconds, and then ease up for two minutes. Whereas if you want a more moderate level of intensity, your W/R might be more like 2:00/1:00. There's virtually no limit to the W/R possibilities.

### How the Ratio Works



## What's HIIT? And why do it?

HIIT is basically performing intervals at extremely high intensity levels. It has become super popular because (when done right) it can provide a host of benefits, including:

- Improved leg strength<sup>1</sup>
- Increased vertical jump height<sup>1</sup>
- Faster running speed<sup>1</sup>
- Higher average power<sup>1</sup>
- Greater motivation, leading to more exercise enjoyment



## HIIT

Includes any form of interval training with **a maximum interval of two minutes**, in which one's perceived effort is at a **minimum of 8 out of 10** on a modified Borg Scale, where 10 is considered an all-out effort resulting in a desire to stop the activity.

### HIIT, defined.

There's some disagreement about what actually constitutes HIIT. That's because some HIIT guidelines primarily focus on duration and heart rate.<sup>2</sup> But those might not necessarily be the best factors to go by.

Here's one example of what we mean. Imagine you're a sprinter. You've just run 40 yards in 4.3 seconds. You undoubtedly feel you've just exerted some very high-intensity effort. Even so, your heart rate may be lower than what current guidelines call for.

To clear up the confusion, we recommend the following definition. It's based on a modified Borg Rating of Perceived Exertion (RPE) Scale.<sup>3</sup>





## Is all interval training a form of HIIT?

No. And therein lies the enormous opportunity that interval training represents for your fitness center.

More than 80% of a typical gym's population is comprised of beginner to intermediate exercisers.<sup>4</sup> Very, very few of those members are likely to be ready, willing and able to perform intervals at extremely high levels of intensity.

Throughout the scientific literature, there is evidence that interval training across a wide range of intensities - from all-out, to very hard, to hard, to moderate - will yield benefits to the exerciser.

That means you can offer virtually every current and prospective member the chance to benefit from interval training. And the more they enjoy those benefits, the more satisfied and loyal they'll be.

**NEXT: SIZE UP YOUR OPPORTUNITY**

## KEY #2

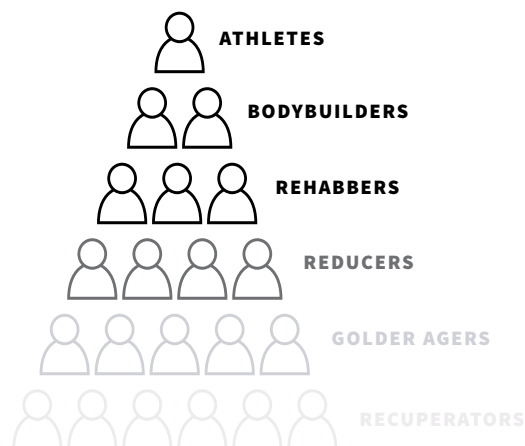
# Know Your Market Opportunity: Every Body

Virtually anyone can benefit from interval training.

While other types of training target certain market segments, interval training can deliver meaningful benefits across all segments, including:

- Elite athletes
- Amateur bodybuilders
- People rehabbing from injuries
- Beginners and moderately fit members
- People struggling with obesity
- Sedentary and aging individuals
- Chronic disease sufferers

### THE INTERVAL TRAINING HUMAN PYRAMID



Want proof? Check out five real-life examples, drawn from scientific research.

### REDUCING FAT.

A group of more than 50 overweight and obese adolescents took part in a 12-week study. The goal was to compare the effects of interval training (4 x 4:00 intervals, twice a week for three months) versus exercise, diet and psychological advice. At the end of twelve weeks, the researchers concluded that the interval training sessions “**reduced several known cardiovascular risk factors** in obese adolescents more than those observed after a multitreatment strategy.” The adolescents who did interval training averaged a 7% reduction in subcutaneous fat, an 8% decrease in abdominal fat and a 7% gain in lean body mass.<sup>5</sup>

### FIGHTING HEART DISEASE.

People with metabolic syndrome are three times more likely to die of heart disease. It’s known that exercise can help, but researchers wanted to find out which level of intensity yields the most benefits. They asked one group of metabolic syndrome patients to try continuous moderate exercise (CME) at 70% of their highest measured heart rate (HRmax.) A second group performed interval training (4 x 4:00) at 90% HRmax, three times a week for 16 weeks. The results of the study showed just how effective interval training can be as a health management tool.

Interval training participants outgained steady-state exercisers across a **spectrum of benefits**, including:

- $\text{VO}_2\text{max}$
- Endothelial function
- Insulin signaling in fat and skeletal muscle
- Skeletal muscle biogenesis
- Excitation-contraction coupling
- Reduced blood glucose
- Reduced lipogenesis in adipose tissue<sup>6</sup>

### **INCREASING AEROBIC CAPACITY.**

A greater peak oxygen uptake ( $\text{VO}_2$ ) usually corresponds to higher aerobic capacity. That's because your ability to take in oxygen determines how much energy you can produce aerobically. In one study of  $\text{VO}_2\text{max}$ , a group of healthy, nonsmoking college students was challenged to run 4 x 4:00 intervals (with 3:00 recovery), three times a week for eight weeks. Overall, they improved their aerobic capacity by an average of 7% — a **significantly greater gain** than that achieved by participants who did other types of training.<sup>7</sup>

### **HELPING THOSE WITH DIABETES.**

When your body can't respond to insulin correctly, your blood sugar level rises.<sup>8</sup> A study sought to determine if certain kinds of exercise can improve insulin sensitivity. For eight weeks, a group of 16 Type 2 diabetic men engaged in an intensive training program: endurance exercise twice a week, plus once-a-week interval training (5 x 2:00 at 85%  $\text{VO}_2\text{max}$ , with 3:00 recovery.) Results: the men achieved a **44% decrease in abdominal fat** and a **58% improvement in insulin sensitivity**.<sup>9</sup>

### **COUNTERING THE EFFECTS OF AGING.**

Aging is known to cause decreases in  $\text{VO}_2\text{max}$  and maximal tolerated power (MTP). Can interval training improve a senior individual's aerobic capacity? To find out, a study looked at 19 women and 16 men, all of whom were non-smokers between 60 and 71 years old. The participants engaged in 30-minute interval training sessions—6 x 4:00 with 1:00 recovery—twice a week. At the end of nine weeks, researchers found these improvements:

- More than 14% higher  $\text{VO}_2\text{max}$
- 15.7%-22.1% more MTP
- 15.7%-22.1% better maximal minute ventilation (MMV)
- Significantly lower systolic blood pressure<sup>10</sup>

**LEARN INNOVATIVE WAYS TO CONNECT  
WITH ALL TYPES OF MEMBERS**

## **KEY #3**

# Customize your offering and maximize member satisfaction.

## **Target member segments with programs tailored to them.**

Perhaps the best thing about interval training is its inherent versatility at addressing different kinds of fitness needs. That's because you can fine-tune four different parameters:

- Number of reps
- Level of intensity
- Duration of intense activity
- Length of recovery period

As a result, there's almost no limit to the variety of possible training sessions. If you can imagine a type of session that would appeal to a specific group of members, you can feel free to create it.

## **MYTHBUSTER MOMENT**

The old “no pain, no gain” philosophy is rapidly getting debunked by research like the studies cited in the previous section. A more effective approach is to find each member's comfort zone—and then gently move them beyond it.

## **No one knows your members or your market like you do.**

You're the ultimate expert on what will work for your fitness center. Want some thought starters on how to utilize interval training to attract and retain various groups of members? Here are some examples we've seen while working with thousands of leading facilities and experts worldwide.

### **Bringing interval training to beginners**

As we mentioned earlier, more than four out of every five fitness center members is either a beginner and or an intermediate exerciser.<sup>11</sup> If you can make interval training work for them, it might just make a huge difference in your retention and member acquisition rates. Now, if you ask a beginner to jog or ride a bike for 30 minutes straight out of the gate, there's a good chance they'll give up. Instead, consider a less daunting initial regimen, like this one: 5 x 6:00 at a low/moderate intensity, with 2:00 recovery. It's recommended by one of Atlanta's top personal trainers, who finds that it helps her new exercisers stick to a regular exercise regimen.



**THE SWEET SPOT**  
**Beginners and**  
**intermediate exercisers**



### **Taking it to the streets for seniors**

Dr. Hiroshi Nose, a professor of sports medicine, has introduced thousands of older Japanese citizens to an innovative but utterly age-appropriate regimen: three minutes of brisk walking, then, three minutes of slower walking, repeated ten times, three times a week for five months.

### **Here are typical results:**

**20% increase** in maximal aerobic power and thigh muscle strength

**20% decrease** in hypertension, hyperglycemia and obesity

**50% decrease** in depression scores<sup>12</sup>

**70% of participants** kept up their interval walking for at least two years after the study ended — and a follow-up study showed that they'd maintained or increased their health improvements.<sup>13</sup>

**NOW: SEE ALL THE EQUIPMENT  
YOU NEED TO MAKE IT HAPPEN**



## **KEY #4**

# Gear up for every body — with the one machine for all

The non-impact design of SPARC makes it ideal for use in group fitness classes, stand-alone interval training and/or as part of a larger circuit training program.

## **Meet SPARC. It's the next step in the evolution of interval training.**

This machine dynamically adjusts to the user's input. Want to work hard? Just speed up. SPARC automatically ramps up the intensity. Ready to rest? Simply slow down, and SPARC dials down resistance. Aiming for moderate intensity? SPARC responds to your speed to provide an accommodating workout that fits your fitness level.

All by itself, this one machine can help exercisers of all descriptions achieve six of their most important goals:

- Burn fat
- Build muscle
- Increase metabolism
- Gain power
- Improve endurance
- Strengthen and shape the lower body







### **Five ways SPARC gives interval training universal appeal.**

1. SPARC's fan-based (accommodating) resistance lets every kind of exerciser find his or her own comfort zone.
2. SPARC's patented arc motion is biomechanically validated to be gentle on the knee. Result: your members' perceived exertion is minimized. (That encourages them to work harder. And the harder they work, the better their results.)
3. With SPARC's intuitive settings and "touch and train" console, exercisers can simply get on and go.
4. SPARC's short-burst workouts offer maximal results in minimal time — which makes it ideal for your members who are short on time but long on expectations. (In other words, just about every member, right?)
5. It fits practically anywhere. So you can use it as you see fit to amp up all kinds of sessions, throughout your facility.

Ready to build a broad-based offering of interval training at your fitness center? Start with the right cornerstone: SPARC. The all-in-one machine. The one machine for all.

**TAKE THE NEXT STEP**



# Interval training is all about working smarter. Now make it work for you.

Learn how to bring the benefits of interval training to all your members — and to your bottom line. Find out all about SPARC and how you can see it in action.



## REFERENCES

<sup>1</sup>As determined by a Wingate test

<sup>2</sup><https://www.acsm.org/docs/brochures/high-intensity-interval-training.pdf>

<sup>3</sup><http://www.cdc.gov/physicalactivity/basics/measuring/exertion.htm>

<sup>4</sup>IDEA, 2008. 2008 IDEA Personal Training Programs and Equipment Survey.

<sup>5</sup>Tjønnå, A., et al. (2009). Aerobic interval training reduces cardiovascular risk factors more than a multitreatment approach in overweight adolescents. *Clinical Science*, 116 (4), pp. 317-326.

<sup>6</sup>Tjønnå, A., et al. (2008). Aerobic interval training versus continuous moderate exercise as a treatment for the metabolic syndrome. *Circulation*, 118 (4), pp. 346-354.

<sup>7</sup>Helgerud, J., et al. (2007). Aerobic high-intensity intervals improve VO2max more than moderate training. *Medicine & Science in Sports & Exercise*, 39 (4), pp. 665-671.

<sup>8</sup><http://www.webmd.com/diabetes/tc/insulin-resistance-topic-overview>

<sup>9</sup>Boudou, P., et al. (2003). Absence of exercise-induced variations in adiponectin levels despite decreased abdominal adiposity and improved insulin sensitivity in type 2 diabetic men. *European Journal of Endocrinology*, 149, pp. 421-424.

<sup>10</sup>Lepetre, P.-M., et al. (2003). Impact of short-term aerobic interval training on maximal exercise in sedentary aged subjects. *International Journal of Clinical Practice*, 63 (10), pp. 1472-1478.

<sup>11</sup>IDEA, 2008. 2008 IDEA Personal Training Programs and Equipment Survey.

<sup>12</sup>Reynolds, Gretchen (2011). What's the Single Best Exercise? *New York Times Magazine*, April 15, 2011, pg. MM44.

<sup>13</sup>Reynolds, Gretchen (2015). Walk Hard. Walk Easy. Repeat. *New York Times Magazine*, February 22, 2015, pg. MM80.