

Dr. Sears' Top 10 Fat Burning Workouts

Dear PACE Enthusiast,

Thank you for purchasing the newest addition to the PACE line—my first DVD on PACE.

My loyal readers will know PACE is a topic I've written a lot about. It is the revolutionary exercise program that put aerobics out of business.

The following report contains brand new research on PACE. I've been working on this since the publication of my book. The report details 10 fat burning workouts for you to use week after week in your PACE workouts.

The workouts contained in this report are all tried and true techniques and easy to follow.

So jump in and get started on working towards your native fitness!

To Your Good Health,

A handwritten signature in cursive script that reads "Al Sears, M.D.".

Al Sears, MD

Workout #1: MyPACE

A few weeks ago, JT sent me an e-mail:

I just started PACE and I am so excited to make some progress. How many times a week should I do the 15-minute program? I've been a yo-yo dieter for years and feel this is the answer I've been looking for. After reading the book I couldn't tell if it was safe to do 6 to 7 times a week.

Great question. PACE® is safe enough to do everyday. But you need to find the right intensity level. And if you're going to do it 7 days a week, you need a PACE® program to accommodate that level of commitment.

This work out will show you how to find an intensity level that's right for you. I'll also give you a flexible program you can use if you want to do PACE® 6 or 7 times a week.

Melt Away Fat by Giving Your Body the Right Challenge

One of the core features of PACE® is your body's *adaptive response* to a new challenge. This adaptive response is the set of changes your body sets in motion every time it's confronted with a unique physical challenge.

Notice I said, *unique*. This is where 99% of all other exercise routines fail. If you repeat the same challenge, the same routine, over and over, you'll never make real progress.

If you apply the right intensity to a new challenge, your body will react to that challenge by triggering hundreds – if not thousands – of biochemical changes that will produce a result of some kind.

Give it the right challenge, and you'll get a desired result – like fat loss, for example. But give it the wrong challenge and you'll wind up fat and tired without ever realizing what you set in motion.

An example of the latter would be traditional cardio or aerobics. An exercise that lasts for an hour or more – with a medium-level intensity – gives your body the wrong type of challenge. And in return, your body will adapt by storing more fat, not less.

What's more, your body will stop adapting if you continue the same routine month after month, year after year. That's why making small changes in your routine is critical. It allows your body to make new adaptive responses over time. This is your key to long-term success.

I'll give you more about making these changes over time in a future edition of *MyPACE*®.

Today, I'll reveal more about intensity and why it triggers an adaptive response. Once you have that under your belt, we'll apply it to a 7-day workout.

So Easy a Caveman Could Do It

PACE® is designed to recreate the habits and movements of our caveman ancestors. And for good reason... They were perfectly adapted to their environment. As a result, they were never fat and never suffered from the chronic diseases that plague us today.

You may not think we have much in common with our ancient ancestors. But genetically speaking, we're 99.998% identical. That means we can learn a great deal by studying their lives and routines.

Cavemen never exercised for 45 minutes to an hour like you might if you were doing an aerobics class. And they never lifted weights to build muscle. They did it naturally. And intensity is one of the keys.

When a caveman was hunting, his day was punctuated by periods of high-intensity exertion followed by longer periods of rest. This is the kind of activity that's natural for a human body. Not long, boring workouts that last forever.

By working out in short bursts, like you do during your PACE® routine, you mimic these ancient patterns that became the foundation for your body's genetic structure.

Intensity during a workout will naturally trigger an adaptive response. Just like it did hundreds of thousands of years ago. A short, intense burst will use carbs from your muscle as energy. It will push the limits of your lung capacity, and will encourage your heart to build up its reserve capacity. Everything you need to live a fat free, disease free life.

But how do you know how much intensity it right for you?

There are several answers. First, you can follow some basic guidelines. Second, you can gauge your own capacity based on how you feel when you do PACE®.

The first guideline is respecting your limits. You may not be able to do an intense exertion period when you first start PACE®. This means you'll build up to it over time. But you can still do an effective routine that gives your body the chance to create an adaptive response.

What do I mean by intense? Intensity is giving your body a challenge that makes you pant when you stop. When you're out of breath after a short burst of activity, you're recreating your body's natural mode of activity. And you're allowing your body to adapt by burning fat and strengthening your heart and lungs.

And if you want to practice PACE® everyday, you need to find the right intensity level without overdoing it. In other words, to make an everyday routine successful, you need to do an easier routine on the first day and buildup slowly during the week.

Start Your 6-Day PACE® Challenge

Let's say you start on Monday. Give yourself a challenge that leaves you breathing heavily without panting. This introduces your body to the idea and gives you space to progress throughout the week. You can also use this strategy if you're just starting out and need to get a feel for where to begin.

On Tuesday, end your last set with an intensity level that's a bit higher than what you achieved on Monday. By the end of the week, you should peak with a set that will leave you out of breath. By building up over a week, you can practice PACE® everyday, and work towards increasing the intensity of each workout. At the same time, you're getting closer to the goal of each PACE® routine, which is panting – that feeling that your lungs are out of air.

There are different degrees of being “out of breath,” and this is what you need to feel subjectively as you do your routine. If you push too hard, too soon, you may find yourself feeling lightheaded or having to sit down in order to recover. It's not necessary to go to this extreme. But remember that the sensation of panting is what you're aiming for. It may seem strange at first. You won't find another workout plan that gives you this kind of goal. But when you realize that the simple act of exercising in short bursts, culminating in a good pant, triggers your body to make all these beneficial changes, you'll start to get a real feel for PACE®.

Even after a few days, you'll notice that your breath is fuller... that it's easier to breathe. That your performance capacity is greater. This alone will boost your immune system and ignite your body's natural fat burner.

Have a look at this 6-day workout:

Day 1 & 2

Warm-Up	Set 1		Set 2		Set 3	
	Exertion	Recovery	Exertion	Recovery	Exertion	Recovery
90 sec	2 min	2 min	1 min	2 min	30 sec	2 min

Day 3 & 4

Warm-Up	Set 1		Set 2		Set 3	
	Exertion	Recovery	Exertion	Recovery	Exertion	Recovery
90 sec	2 min	2 min	90 sec	2 min	1 min	2 min

Set 4		Set 5	
Exertion	Recovery	Exertion	Recovery
30 sec	2 min	N/A	N/A

Day 5 & 6

Warm-Up	Set 1		Set 2		Set 3	
	Exertion	Recovery	Exertion	Recovery	Exertion	Recovery
90 sec	2 min	2 min	90 sec	2 min	1 min	2 min

Set 4		Set 5	
Exertion	Recovery	Exertion	Recovery
45 sec	2 min	20 sec	2 min

This is a good example of PACE[®] routine that will enable you to workout 6 times a week, yet build up your intensity levels as you go along.

I didn't indicate specific intensity levels for you to follow. By this point, you know that intensity is subjective. You'll set your own intensity levels by setting your goals for each day.

By the time you finish set 3 on days 1 and 2, you should be breathing heavily. Enough to give you a challenge, but nowhere near your maximum level.

On days 3 and 4, you have an extra set. So by the time you finish set 4, your intensity level should leave you panting. You'll have the feeling that you did more than on days 1 and 2, but still below your max.

On days 5 and 6, you have 5 sets. Pace yourself so that you build your intensity with each set, and finish so that you're out of breath, noticeably panting. Even with your day 5 and 6 routines, you don't want to push your maximum capacity. Leave a little room for improvement.

Experience the sensation of being out of breath – of your lungs quickly trying to recoup that air that's missing. But don't push yourself to the point of collapse.

After repeating this routine for 4 weeks, increase the intensity on days 1 and 2 and go up from there. Also try changing the instrument you're using. If you did the first month, on an elliptical machine, try the second month with a stationary bike.

Workout #2:

If you're de-conditioned and out of shape, you may wonder if PACE is right for you...

Many of my patients who have no experience with exercise ask me this question all the time. Unlike aerobics or long-distance running, PACE is ideal if you've had a hard time getting involved with any kind of physical activity.

Over the years, I've trained people to do PACE even when they're facing difficult challenges. I've had success with the elderly, heart attack victims, people with physical disabilities, even those who are confined to a wheelchair.

And if you're overweight or obese, that's not a problem, either. I once had a patient who weighed over 400 pounds. He had no trouble getting started and after doing PACE for 18 months, he lost over 150 pounds.

Anyone can do PACE. In fact, it may be the best option if you've ever thought you could never get in shape or find a program that's right for you.

PACE is effective because it's flexible. No matter where you're starting from, PACE can be adapted to fit your situation. Today, we'll look at some common problems you may be facing and how to come up with a PACE program that will work to get you started.

In your PACE book, you've noticed how most of my PACE workouts are divided into *sets* - each one having an exertion period and a recovery period. If you're out of shape or have some kind of physical challenge you're dealing with, those routines may be a little out of reach for you right now. But not to worry... We can take those same principles and adapt them to fit your needs.

If you're overweight or just very out of shape, your primary concern is lack of cardio-pulmonary strength. This means your heart and lungs have a hard time supplying your body with enough blood and oxygen to fuel physical exercise.

This creates a kind of "catch-22" situation. You need to boost your heart and lung strength to ensure good health and avoid disease. But when you try and exercise, your heart and lungs can't provide you with enough energy to keep you going. This often results in discouragement. But feeling like you can't do it, shouldn't keep you from trying. Especially when PACE can make it easy for you to get started right away.

The trick is to start off slowly and stay committed. You don't need to exert yourself like a track and field star right off the bat. You simply need to respect your current condition without making any limiting judgments about your ability.

Your exertion periods may be short to start off with, but your endurance will increase as you progress. And at this point, you shouldn't be worried if you can only exert yourself for a few moments at a time. The point is to give yourself a challenge and then stop and recover.

Let's take walking as an example. This is the easiest way to get started if you're de-conditioned or facing a physical challenge. But it does have some drawbacks you need to be aware of: Walking will not promote muscle growth and you need to stay focused - otherwise, you won't create enough of a challenge.

Here are a few points to consider: When you're walking, you need to start at a comfortable pace and slowly speed up until you feel your heart rate increase. When you feel this extra bit of exertion, maintain it until you start to feel winded. Then stop and catch your breath. Take a few minutes to recover and focus on your breath until you're breathing normally. This will be your first "set."

It may look something like this: You put on a comfortable pair of walking shoes and some loose-fitting clothes. You start off on the sidewalk or on a quiet street. You could also go to the gym and work on a treadmill.

You warm up by walking at a normal, comfortable pace for 1 to 2 minutes. Then you slowly start to walk faster. As you increase your speed, pick a target and then maintain it. This is a little subjective, so you're going to have to get a feel for it.

For example, when you start off walking at a normal pace, imagine your top walking speed and then work back from there. So tell yourself, "*I'm going to walk normally and then increase my speed by about 15%.*" Then hold that speed and maintain it for a few minutes.

If you don't feel like that increase is giving you a challenge, go up a notch until you've increased your speed by 20 to 25%. Then hold that speed and maintain it for a few minutes.

This is how you gauge your exertion level. You know you're getting close when you feel your heart rate go up. And when you feel this extra exertion, look at your watch and see how long you can sustain it. If you can do it for 2 to 3 minutes, great. If not, it doesn't matter. Just follow this pattern.

After you've challenged yourself for a few minutes, stop and rest. Ideally, you should feel winded. You should be breathing heavier than you usually do and you should feel your heart beating faster. Now begin your recovery period. Allow your heart rate and breath to return to normal.

When you've completed your first set, try another. At this point, repeat your first set without increasing your intensity. If you want to ramp up the challenge, increase the *amount of time* you walk at a faster speed.

By walking and first gauging your exertion capacity, you can do a productive PACE routine at your own level. It doesn't matter how quickly you can walk. Even if your top exertion speed is just above your normal walking speed, you can give yourself enough of a challenge to expand your lung volume and build reserve capacity in your heart.

This gradual build up in cardio-pulmonary power will get you to higher levels and extend your endurance. Little by little, you'll become more and more conditioned and better able to handle more intense challenges.

When you feel you've improved your exercise capacity - or if you want to start with something more challenging than walking - use this same formula with swimming or biking. Both give you a good heart and lung workout.

Swimming is helpful if you have a disability as the water's buoyancy will take the strain off your joints and make it easier to move. Biking is also very effective for de-conditioned beginners and you have the option of doing it outside or in the gym.

Like walking, take it slow and evaluate your exertion level. Don't strain yourself. Take small, deliberate steps and stay with your program. Within the first week, you'll start to see progress.

By gently encouraging your heart and lungs to maximize their output, you'll be able to improve right away. What's more, you'll be able to successfully start a productive PACE routine, no matter what your age, condition or personal history.

As you progress, do less walking and put more focus on swimming and biking. And when you

feel ready, try some of the basic routines in your PACE book. Once you've made headway with your heart and lungs you'll be able to increase your challenge and activate your native fat burner.

With a sufficient challenge, you'll start to burn fat after your PACE routine. This fat burning will last as long as 16 to 24 hours after you finish. But your first goal will be to build cardio-pulmonary power by establishing a PACE routine that accommodates your current situation.

This in itself is a major victory. A lot of folks can't get past the false assumption that they'll never be able to do it. With PACE, you never have to make excuses, as you can always find a routine that perfectly matches your current level.

Workout #3: How to recover from exercise better using PACE

Today I want to show you how to recover from exercise better using PACE.

Having the ability to recover after exertion is critical. It can lower your resting point and thereby increase your reserve capacity in your heart and lungs.

But recovery isn't something we train for. Long-duration exercises like aerobics and marathon running focus on constant exertion. They don't give you a chance to focus on helping your heart rate to come back down.

Our ancient ancestors worked and played in ways that strengthened their heart's ability to recover quickly. Hunting is a good example. This involved short bursts of exertion followed by rest. Chasing animals and escaping from dangerous situations were the routines hunters followed for millions of years.

But, in our modern world we've lost this ability. As a result, it may take you longer to recover when you do your PACE routines. Some of my patients tell me it takes them up to 20 minutes to recover from a 2-minute exertion period.

If this is true of you, don't worry. You can still do a productive PACE routine. Simply *decrease the intensity or duration* of your exertion periods then, take *as much time as you need* to recover. Try and let your heart rate come down to within 30 beats of your resting rate – 20 should be your goal.

Some think that because it takes them 20 minutes to recover their PACE routine will never work or that they'll never see the benefits PACE can offer.

This is common but not true at all. Your body will get better at this with practice. Establishing the ability to recover is one of the most useful aspects of your training. As you get older, the ability to recover will keep you mobile and help prevent heart attacks and other conditions like congestive heart failure.

And you don't have to stop after one set. The "20-minute rule" I talk about refers to exertion. You never want to exert yourself for than 20 minutes at a time. That shifts your body into fat burning mode. And fat burning is something you want to do AFTER your workout.

But this doesn't apply to your recovery time. If you exert yourself for 2 minutes and then recover for 20 minutes, that's only 2 minutes of total exertion. You still have 18 minutes left.

You can do a full PACE workout, it will simply take you a little longer. Here's a sample workout:

The Long Recovery PACE Workout

Warm-Up	Set 1		Set 2		Set 3	
	Exertion	Recovery	Exertion	Recovery	Exertion	Recovery
2 min	1 min	15 min	45 sec	12 min	30 sec	10 min

This routine takes over 40 minutes to complete but contains only 2 minutes and 15 seconds of actual exertion.

This is meant to be a temporary routine – something to help you improve your recovery time and boost your heart and lung strength. But if you follow it faithfully, it will propel you to greater heights. Eventually, you'll recover from a 2-minute exertion in just a few minutes.

Lately, I've been using sprints to practice PACE. I can get my heart rate from 170 beats per minutes down to 80 in about 3 minutes. I have professional athletes as patients who can do that in half that time.

But take things at your own speed. Practice it and your recovery rate will improve. This only makes PACE even better.

Workout #4: Use Sprints to Burn Fat Fast

Need a fast-acting fat burner to drop those holiday pounds? Try sprints... Sprints are an easy way to kick start your metabolism. They also challenge your body in ways it's not used to. And giving your body a new challenge is the perfect way to burn fat fast.

You've heard me talk about creating an "adaptive response." That's when your body reacts to a new stimulus by making changes. If negative, like suddenly eating a tub of fried chicken with an order of jumbo French fries, your body's adaptive response will probably include fat storage and a massive release of insulin.

But when you give your body a new positive challenge, it can respond by burning fat, building muscle and boosting your metabolism. Sprinting does just that. It's a unique challenge that triggers a powerful set of changes.

Think about it... How often do you sprint? When was the last time you needed to? If you're like most folks, you haven't sprinted since your high school days.

Sprinting unlocks your fat burning potential by pushing your body to its maximum output. When you run as fast as you can in short bursts, you can't help but feel out of breath when you stop. This sudden activity will force your body to use up its stores of carbohydrate from your muscles for energy.

After you finish, your body will start burning fat to replace the energy it used from your muscle tissue. This is called your *after burn*. Sprinting is one of the best ways to switch on your *after burn*.

Here's an easy-to-follow workout for sprinting you can do right away. If you have room outdoors, this is your best option. A clear space that gives you 40 to 50 yards of running room is ideal.

If you don't have an appropriate outdoor space, you can use the treadmill at your local gym. Start off slowly and turn up the speed until you're at a sprinting level. Be careful though: Always use caution when you're sprinting on a machine.

The PACE Workout for Sprints

Warm-Up	Set 1		Set 2		Set 3
	Exertion	Recovery	Exertion	Recovery	Exertion
Leg Stretches	50 yards	5 min	40 yards	5 min	30 yards

Sprints are about as easy as you can get. Start from a standing position and run as fast as you possibly can for 50 yards. If you're on a machine, run for about 20 seconds with a minimal incline setting.

Take as much time as you need to recover. If you don't feel winded after you finish, increase the speed of your sprint.

Workout #5: Get Back on the Fast Track...

If you're having trouble making progress with PACE, you may not be pushing your maximum heart rate.

When readers or patients tell me things like, "*Dr. Sears, I've been doing PACE for 3 months and nothing is happening... What gives?*" – it's almost always an issue of progressive exertion.

But I have good news. This is not a problem. You may simply need a slight change of focus.

Today I'll show you an easy way to monitor your heart rate to be sure that you are progressively challenging yourself so you can get back on the fast track.

Instead of following the different routines with their exertion and recovery times, I want you to stop doing that now. Instead, I want you to simply follow your heartbeat and make note of your "perceived exertion," the level of effort you feel you're doing during a workout.

Here's the important point I want you to focus on: If you don't challenge your maximum heart rate, you won't get the benefits of PACE.

All the techniques in your PACE book hinge on your ability to challenge your heart and lungs a little more each time you workout. This is the element of progressivity that separates PACE from aerobics, cardio – even interval training.

A reader recently sent me his workout log. He did PACE faithfully 3 times a week, but after 3 months had no success. When I had a look, it was easy to see why... Each time he did PACE, his maximum heart rate would vary dramatically. Sometimes it was as low as 149. Other times it went up to 173. But there was no pattern of progression.

To ensure success, focus your challenge and get your maximum heart rate a little higher each time. This makes all the difference.

Let's say you do 4 sets during your PACE routine, building the intensity a little each set. During your first set, maybe your heart rate gets up to 140. Then during your second set, let's say you get up to 148. In your third set, you're pushing harder with greater intensity and get your heart rate up to 156. During your last set, you give it all you have and your heart rate goes up to 164.

Use this as your baseline. During your next PACE session, try and get your heart rate a point or two higher by the end of each set. So your goal for the first set is getting your heart rate to hit 141 or 142. In your second set, your new target becomes 149 or 150. Your third set target becomes 157 or 158. And finally, in your last set you try and push your maximum output and get your heart rate to 165 or 166.

When you do this, you'll find that the PACE techniques like creating an *oxygen debt* happen naturally without you trying to make it happen. You'll feel winded at the end of your last set because you gave your heart and lungs a worthy challenge.

And the benefits will come naturally too. When you progressively challenge your cardiopulmonary output, you will naturally get lean and ignite your "after burn." Your body will make these changes as part of its adaptive response to the progressive challenge you're giving it.

Did you notice that we didn't put our focus on your exertion period times? Use your routines as a reference point. But if you need to extend them slightly or cut them back slightly to hit your heart rate targets, that's perfectly fine.

Obviously, you can't keep raising your maximum heart rate for year after year. At some point

you'll hit your limit. Respect those limits and use "perceived exertion" as your safety net. If you feel like you're going to pass out or fall over, then you are going too far. If your recovery time is unusually long, this is another sign you need to scale back.

When you just can't push your output any farther, change your challenge. Instead of pushing your maximum heart rate progressively higher, focus on getting your heart rate to your target *faster* than you did last time. If it takes you 2 minutes to hit 165 during your last set, see if you can hit 165 in *under* 2 minutes during your next workout.

Using this model you can't lose. And, it gives you enough flexibility to modify your PACE routines for the rest of your life.

Workout#6: Change Up Your Routine for Long Term Success...

Have you changed your PACE routine lately?

Unless you give your body new challenges, you'll get stuck in a rut and make no progress. This is the most common exercise mistake. Let me explain...

First, your body adapts to whatever challenge you give it. The changes your body makes in response to these challenges can be positive or negative. If you run for an hour every day, your body will adapt by shrinking your heart and lungs and skeletal muscle. That's a *negative* adaptation.

Here's why it happens: your body can best handle long distances with "streamlined" organs and muscles that use less energy over long periods. This is the problem with aerobics and marathon running.

You can get your body to make a *positive* adaptation by using your PACE principles. If you exercise in short bursts and challenge your maximum heart rate, you'll burn fat and develop the heart of a warrior.

Second, your body begins another clever trick. It stops adapting to anything that it is already accustomed to. After 4 to 6 weeks, it gets used to the routine and stops making these beneficial changes. Once you hit this point, your progress stops and you'll notice that you've "hit a plateau."

To restart your progress, You must change up your routine and give your body a new challenge to respond to. This PACE Power workout will give you ideas for coming up with new challenges. It's easier than you think.

If you were doing sprints, with exertion periods that only last 10 to 20 seconds each, change your challenge and work on a different instrument, like a recumbent bike or elliptical. And instead of going for just 30 seconds, do 3 or 4 sets of 3 to 4 minutes each.

Do you see the difference? By stretching out your sets from 30 seconds to 4 minutes, your activity changes drastically – and your body responds to this.

Here’s the sprint workout I recommended in your PACE Power Workout #4:

Warm-Up	Set 1		Set 2		Set 3	
	Exertion	Recovery	Exertion	Recovery	Exertion	Recovery
Leg Stretches	50 yards	5 min	40 yards	5 min	30 yards	5 min

And here’s a workout that changes up the challenge:

Warm-Up	Set 1		Set 2		Set 3	
	Exertion	Recovery	Exertion	Recovery	Exertion	Recovery
2 min	5 min	3 min	4 min	3 min	3 min	3 min

For this routine, you can choose just about any instrument – but to make it different, pick something other than running, which is what you did for the sprints.

Let’s say you use a stationary bike. For your first set, you’ll start off with a relatively low level of resistance. (For a 5-minute exertion period, you’ll need a lower-level resistance.)

After a full recovery, you’ll turn up the intensity a little bit and reduce your length to 4 minutes. And then you’ll turn it up again during set 3.

Coming from a routine of sprints, this workout will feel very different. It will require that you build up your maximum cardiopulmonary output more slowly – over 4 or 5 minutes instead of a big blast of 10 to 20 seconds.

Be flexible in your thinking. The guidelines and workouts in your PACE book are suggestion guidelines – not absolute rules.

Use common sense to make the changes you need to keep your program challenging. By coming up with new routines that let your body adapt in new ways, you’ll burn the most fat and maintain your success year after year.

Workout #7: A New Twist to Your PACE Routine

Here’s a new twist to your PACE routine that I think will help some of you a great deal.

Some people read PACE but then end up doing a slightly modified cardio routine. It’s hard not to be influenced by all the things you read and hear touting durational cardio. Don’t fall into the trap of trying to do 2 opposing things at once.

The primary goal of your PACE program should be heart and lung strength. Once you've built those, you can work on some endurance training without compromising strength very much but ... **You can't very effectively build them both at once.**

If you don't challenge your maximum output, by briefly getting out of your "cardio zone," you'll never get the remarkable benefits PACE can give you. Forget about staying within 60% to 80% of your maximum heart rate. This is a guide for aerobics and durational cardio. PACE is about short bouts of *intense* exertion – not *medium* bouts of *medium* exertion.

The next time you do PACE, don't do it while looking at your book. If you need to reinforce the ideas behind PACE, read the first two chapters, but otherwise, leave it on the shelf while you exercise.

Here's why: the printed, structured, formatted workouts will distract you from the core elements of PACE training, i.e. – challenging your maximum output just a little bit more in some way than you have in the past and creating an oxygen debt.

Here's what I do: I got myself a good heart rate monitor (I'm working on making it available to you as well) and pick your favorite heart challenging exercise. (I've been using a jump rope lately.) Do 4 sets consisting of one exertion period followed by recovery. During your first set, take your heart rate up to its first increment. If your max heart rate is 170, than get yourself up to around 140 during your first set. If you're using a machine, the resistance should be low to moderate.

It doesn't matter how long this takes – 30 seconds, 3 minutes, whatever... When you get to your designated heart rate, stop and watch your heart rate monitor. If it goes up a few beats per minute before dropping, you've achieved your oxygen debt.

Then take a break. Get off your machine. Walk around. Focus on your breathing. Go drink some water. Relax. Bring your heart rate down to where you can breath easy.

Get back on your machine and do your second set. Raise the resistance and start again. Don't think about how much time you're going to spend. Just get your heart rate to the next level. Let's say you go to 150 or 155. Focus on creating an oxygen debt when you finish your exertion period.

When you hit this mark, stop and rest regardless of the time it took. Repeat the recovery routine above.

By your last interval, if your using a machine the resistance should be high but not impossible. Focus on getting near your limit. You won't be able to max out each time you do PACE, but workout intensely and make sure you are winded when you are done.

This workout puts all the focus on creating maximum exertion and challenging your heart rate. Plus, you fully recover. This is not an engineering project. You are working to coach your body.

All you need to do is signal to your body that it needs more oxygen faster. That's it. Forget about the length of each interval. As long as you don't exceed a total of 20 minutes when you add up all your exertion periods, it doesn't much matter. And to benefit it can be as short as a few seconds depending on your level of conditioning for this kind of challenge.

When you're finished, you should feel like you've really done something. Your legs should ache. Your shirt should be wet from sweat.

Don't worry about quantifying intervals. If you FEEL that you've pushed yourself and you've given yourself a worthy challenge, then you've done it right. Focus on the feeling, not on the analysis.

Hunters never analyzed any of this but were lean with heart and lung strength. You are genetically built for that life as well. Your body reacts to this challenge like a fish takes to water. Too much analyzing data and deliberation probably interferes more than helps.

Part of PACE is returning to that primal part of yourself that thrives on emotion, challenge and intense exertion. Maybe you should let your brain take a brief holiday while you do it.

If you use your brain, use it constructively. Visualize the lean, vigorous, big-chested, thin-wasted body you want and tell yourself that you're allowed to have them. Just like the primordial humans before you, you were born to have them.

Workout #8: Build Valuable Muscle Mass Without Lifting Weights...

Unless you stop it, you lose muscular strength and mass as you age.

Unfortunately, most doctors completely ignore this problem. They wait until it has produced serious health consequences and then prescribe drugs for your symptoms.

Loss of youthful muscle causes fat gain, weakness and fatigue, apathy, sexual dysfunction, chronic illness, bone fractures, depression, sagging skin and multiple hormonal declines.

You don't have to sit around and wait for it to happen. Today, I'll give you a PACE routine that builds valuable muscle mass without lifting weights – or even going to the gym.

Body weight exercises are perfect for this. For PACE®, you do 3 different calisthenics in what we call “supersets.” And in between each superset, you focus on recovery.

Your first exertion period or superset will consist of three sets of repetitions with only a slight pause in between. Start with Hindu squats, one of the best calisthenics for building the muscles of your legs, glutes and lower back.

It goes something like this: Do 15 repetitions of Hindu squats. Pause for 5 seconds. Do another 15. Pause for 5 seconds. Do another 15. Start recovery (3 to 5 minutes). This is your first superset.

After you recover, you start a new superset but with a different kind of calisthenic. We started with the lower body, so let's add two more that work that area. Alternating lunges and jump squats would be perfect.

Your second exertion period will mirror your first. Do 15 repetitions of alternating lunges. Pause for 5 seconds. Do another 15. Pause for 5 seconds. Do another 15. Start recovery (3 to 5 minutes). This is your second superset.

Do another exertion period in the same way, this time using jump squats. That's it; you're done.

Sounds simple, but you'll get quite a workout. The key to this routine is in the superset technique. It has a remarkable effect on your body's production of growth hormone and testosterone.

Studies show that your body steps up production of these two vital hormones when you break for those short 4 or 5 second intervals. Growth hormone and testosterone are both key players in new muscle growth. That makes this workout perfect for reversing the muscle loss that comes with aging.

Here's how to do the three calisthenics for your lower body that I mentioned above.

Hindu Squats – Stand with your feet shoulder width apart. Extend your arms out in front of you, parallel to the ground with your hands open and palms facing down. Inhale briskly and pull your hands straight back. As you pull back, turn the wrists up and make a fist. At the end of the inhalation, your elbows should be behind you with both hands in a fist, palm side up.

From this position, exhale, bend your knees and squat. Let your arms fall to your sides and touch ground with the tips of your fingers. Continue exhaling and let your arms swing up as you stand.

This brings you back to the starting position: standing straight up with your arms extended in front of you, hands open and palms facing down. Repeat.

Alternating Lunges – With your hands on your hips, take a step forward with your right leg until your front knee is bent 90 degrees and your back knee almost touches the ground. Push off from your leading foot and return to the starting position. Repeat with your left leg.

Jump Squats – With body crouched, feet together, arms at sides, head straight and level, quickly straighten legs and jump upward as high as you can. Simultaneously, extend arms and reach overhead. After landing, quickly return to original position, without losing your balance. Repeat.

Workout #9: Take the Leash off Your PACE Program...

This summer take the leash off your PACE program.

If you've been sticking to the routines in your PACE book, use the long days of summer to throw off the old workouts and let your PACE program loose.

What am I talking about?

I've presented my PACE program to you as a structured workout. That's what most people need. But the essence of PACE isn't structured. It's not written in stone or trapped by a set of definitions.

PACE is also about reconnecting to your native instincts. Remember that. It's not important which machine you use at the gym. If your first exertion period is one, two, three, or four minutes, it doesn't matter. The greater goal is getting your body back into the flow of life it was designed for.

PACE refocuses and sharpens the instincts you were born with but separated from after decades of negative conditioning. PACE is primitive. It puts you back in touch with the rhythms, cycles and patterns that are healthy and natural.

Here's a quick example of how PACE can get you back in touch with a native feature of good physical condition. It's called *heart rate variability*. Dr. Dardik was the first to study this phenomenon. He discovered your heart is naturally programmed to perform with a wide range of speeds. It is designed to have the natural flexibility and resiliency to accelerate fast and to recover just as quickly.

These wide ranges of possibilities are part of your native instincts. It's what works for you. It's what keeps you healthy and disease free.

Ironically, most seem to want to train this way.

Instead of strengthening your heart's ability to be spontaneous and variable, you've probably been training your heart to stay within a narrow band of activity. This is what happens when you go jogging or do an hour of aerobics. You keep your heart fixed inside a little box where it has no room to move or breathe – or be natural.

You do the same thing when you sit at a desk for the whole day. When you go home and lie on the couch for the whole night you make it even worse. This lifestyle doesn't give your heart the opportunity to speed up and slow down. It lacks the changeable nature that defines life on this planet.

In this light, being a jogger or a couch potato is the same thing. Both lifestyles are just as bad. They train your heart to die young.

PACE nurtures your heart's natural rhythms by giving you short, intense bursts of exertion followed by recovery. This mimics – and strengthens – the heart rate variability your heart thrives on.

PACE is the antidote to the self-destructive techniques we wrongly believe are helpful. It's the one activity that reinforces nature's own will. And it's the one activity that brings you back to the natural vibrations and cycles that keep you balanced, happy and free of heart attacks.

You don't need a structured routine to get the PACE experience. Many of the outdoor activities you enjoy during the summer are perfect for a "primitive" PACE workout.

Here are just a few suggestions:

Rock climbing (if you have the skill to do it safely)

Swimming (at any variable pace that works for you)

Kayaking (against current or waves)

Running on the beach

Sprinting in the park

Simply use a few guidelines. Focus on short periods of exertion and follow up with some recovery time. Get into a rhythm. When your heart rate gets up and comes back down, that's all you need. You'll feel winded and exhilarated. Keep that on-and-off pattern and you'll get a great workout.

When you get home after a day at the beach or local park, throw a grass-fed steak on the grill. Nothing could be better for you... or more natural.

Workout #10: Adapting PACE to Your Natural Environment...

Here's a good PACE story...

An older couple from Cincinnati comes down to Florida every six months to see me at my clinic. Let's call them "JP" and "LP." They are both avid PACE fans. But that wasn't always the case...

LP was the first to give it a try. But when she asked her husband, JP said, "*Dr. Sears must be some kind of whack job if he thinks exercising for 10 minutes is going to do anything...*"

That's when his wife got creative.

Around the corner from their house is a hill – about 30 feet high on one side and sloping down

50 feet on the other side. The incline is about 30 degrees. Using this natural feature they created their own PACE routine by running up the hill and down the other side.

Over the next month they gradually worked up doing 4 to 5 sets first thing in the morning. It takes about 15 minutes.

JP was amazed by the results. He recently told me he's running up hills he couldn't walk up 40 years ago. He said he feels the same kind of enthusiasm he had when he was a teenager.

Adapting PACE to your natural environment is another aspect of what I talked about last month: Taking the leash off your PACE program.

Your PACE book has structured routines, but the essence of PACE isn't quite so stoic. It's not carved in stone or trapped by a set of cookbook restrictions. **PACE is about reconnecting to your native instincts.**

That's what my patients are doing when they go up the hill and down the other side... they give themselves a worthy challenge in the most organic way possible.

Jim started losing fat in one week. And he noticed a lung volume boost right away. That's not surprising. Getting your body to adapt to a new cardio-pulmonary challenge naturally burns away the fat. It's a reliable way to hit your ideal weight and keep it there.

You can do the same. You don't need to do PACE in the gym. If you have a natural feature in your neighborhood or local park, create your own PACE routine like SP did. And you don't have to run if that's not your thing. You can get on your bike and get the same results.

Here are a few ideas:

Find streets with steep inclines. Good for both biking and running.

If you live in a flat area, measure off streets for sprints – 25 yards, 50 yards, 100 yards, etc.

Use hiking trails in local parks.

Staircases can be a good challenge. From the stairs in your own home to the stairs in an empty sports arena, a set of stairs is an easy PACE routine.

Even a sidewalk can be a good place to practice PACE. If you can't manage biking or running, just walk down the sidewalk. Time yourself and see how long it takes to get down the block.

Then stop and get a sense of your exertion level. Are you winded or out of breath? Try walking back to your starting point, but faster than last time. Sounds simple, but it's effective if you're having trouble with other workouts.

If you get stuck for ideas, use these guidelines: Focus on short periods of exertion and follow up

with some recovery time. Get into a rhythm. When your heart rate gets up and comes back down, that's all you need.

You should feel winded yet exhilarated. Keep that on-and-off pattern and you'll get a great workout.