



IMG PHYSICAL THERAPY

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Smoking Cessation and Exercise Program

Smoking is one of the most difficult addictions to overcome. The goals of this information packet are to convince you it is important to make the attempt to quit smoking, and that you can quit smoking.

The number one reason to quit smoking is for your health and the health of those around you. According to the Surgeon General, smoking is the number one preventable cause of illness and disease in the United States. Cigarette smoking causes an estimated 443,000 deaths each year, including approximately 49,000 deaths due to exposure to secondhand smoke. A common misconception is that smoking only increases your risk for lung cancer. Smoking has a negative effect on all body systems.

Some examples of detrimental effects of smoking include:

- Cancer (lung, throat, mouth, nasal cavity, esophagus, stomach, pancreas, kidney, bladder, and more)
- Heart attack (6 times more likely)
- Decreased wound healing
- Osteoporosis
- Increased blood pressure and heart rate
- Increased risk of Dementia and Alzheimer disease
- Decreased balance
- Increased risk of autoimmune diseases such as Lou Gehrig’s disease (ALS), Multiple sclerosis (MS), and Rheumatoid arthritis (RA)
- Many more
- Chronic lung diseases such as COPD
- Increased risk of infection
- Decreased pain tolerance
- Peripheral Vascular disease
- Muscular weakness and fatigue
- Low back pain

The Health Benefits of Quitting

After...

20 minutes	...Blood pressure drops to near the level before you had your last cigarette.	
8 hours	...Carbon monoxide level in the blood drops to normal.	
24 hours	...Chance of heart attack decreases.	
2 weeks to 3 months	...Circulation improves. Lung function increases up to 30%.	
1 year	...Chance of heart attack is cut in half.	
5 years	...Stroke risk is reduced to levels of a non-smoker's.	
10 years	...Risk of dying from lung cancer is about half of a current smoker.	

Helpful Resources for Quitting Smoking

- Quit lines
 - 1-800-QUITNOW (National Quit Line)-refers to local quitting resources
 - 1-800-LUNG-USA (American Lung Association)
 - 1-800-ACS-2345 (American Cancer Society)
 - 1-877-44U-QUIT (National Cancer Institute)

- Internet Sites

-www.cancer.org (American Cancer Society)

-www.smokefree.gov (National Cancer Institute)

-www.americanlegacy.org (American Legacy Foundation)

-www.lungusa.org (American Lung Association)

- Nicotine supplements come in many forms:

Gums, Inhalers, Lozenges, Nasal spray, & Skin patches

Common reasons people do not want to quit smoking:

I'M UNDER A LOT OF STRESS, AND SMOKING RELAXES ME	Your body is used to Nicotine. You naturally feel more relaxed when you give it a substance it has come to depend on. Nicotine is a stimulant: it raises your heart rate, blood pressure, and breathing rate. Most ex-smokers feel much less nervous just one to two weeks after quitting.
SMOKING MAKES ME MORE EFFECTIVE IN MY WORK	Trouble concentrating can be short-term symptom of quitting, but smoking actually deprives your brain of oxygen
I'VE ALREADY CUT DOWN TO A SAFE LEVEL	Cutting down is a good first step, but there is a big difference in the benefits to you between smoking a little and not smoking at all. Smokers who cut back often inhale more frequently and deeper; thus canceling the benefits of cutting back. After you have cut back to about seven cigarettes a day, pick a quitting date within 1-2 weeks.
I SMOKE ONLY SAFE, LOW TAR, LOW- NICOTINE CIGARETTES.	These cigarettes still contain harmful substances, and many smokers who use them inhale more often and more deeply to maintain their nicotine intake. Carbon monoxide intake often increases with a switch to low-tar cigarettes.
IT'S TOO HARD TO QUIT. I DON'T HAVE THE WILLPOWER	Quitting and staying away from cigarettes is hard, but it's not impossible. More than 3 million Americans quit every year. It's important for you to remember that many people have had to try more than once, and try more than one method, before they become ex-smokers.
SOMETIMES I HAVE AN IRRESISTIBLE URGE TO HAVE A CIGARETTE	This is a common feeling, especially within the first 1-3 weeks. The longer you are off cigarettes, the more your urges will come at times when you smoked before. When you're drinking coffee, alcohol, or you are at a cocktail where other people are smoking. If you can't avoid these high- risk situations, you can try to visualize how you will handle the desire for a cigarette if these occasions happen.
I BLEW IT. I JUST SMOKED A CIGARETTE	Smoking one or even a few cigarettes doesn't mean you have "blown it". It does mean that you have to strengthen your will to quit and try again. Don't forget that you got through several days-perhaps even weeks or months-without a cigarette. This shows that you don't need cigarettes and that you can be a successful quitter.

<http://www.quitsmokingsupport.com/excuses.htm>

Exercise Program

Whether you decide to make an attempt to quit or not, exercise offers many ways to combat the negative impact smoking has on your body. Some benefits exercise can offer include:

- Lowering blood pressure and resting heart rate
- Improving muscular strength and endurance
- Endorphin release that help to ease symptoms of nicotine withdrawal
- Increases self-efficacy and confidence for success
- Helps to prevent weight gain after quitting
- Reduces insomnia (decreased ability to sleep) after quitting
- Improved blood circulation
- Decreased risk for stroke and heart attack
- Promotes healthy and strong bones
- Improved balance
- Many more

If you have not been exercising regularly, it is always important to ease into a routine. This next section will present you with ideas for exercises and how hard you should be working.

How hard should I be working?

<i>Rating of Perceived Exertion Borg RPE Scale</i>		
6 7 8 9 10 11	Very, very light Very light Fairly light	How you feel when lying in bed or sitting in a chair relaxed. Little or no effort.
12 13 14 15 16	Somewhat hard Hard	Target range: How you should feel with exercise or activity.
17 18 19 20	Very hard Very, very hard Maximum exertion	How you felt with the hardest work you have ever done. Don't work this hard!

<http://www.ivyrehab.com/2014/03/borg-scale/>

The Borg Scale is an easy way to monitor how hard you are working. This scale can be used for any of the exercises presented in this packet. As the scale states above, you want to be working in the 12-16 range, or somewhat hard to hard. If you find yourself below this range, you are ready to make your workout harder, if you are above this zone, scale back on your exercise, you are not ready for that level of difficulty yet.

Use the Karvonen Equation.

The Karvonen equation is a formula used to find a target heart rate for exercise. To use the Karvonen Equation, it is helpful to use a heart rate monitor. Heart Rate monitors can be purchased for as little as \$30, or as much as \$200.

Components to the equation:

1. *Max heart rate*=220-age Example: 65 year old max heart rate is 220-65=155
2. *Resting heart rate*= heart rate while you are completely relaxed.
3. The equation: (Max heart rate-resting heart rate) x 50% + resting heart rate

Example 65 years old with a resting heart rate of 75 beats per minute

$$[(155-75)(.5)] + 75 = (80 \times .5) + 75 = 40 + 75 = \mathbf{115 \text{ beats per minute}}$$

This means that this individual should exercise at a heart rate of 115 beats per minute. The equation is helpful because as this person improves their fitness, they will be able to perform harder exercises and more intense exercise at this same target heart rate.

Examples of Exercises you can perform:

Aerobic exercise

Aerobic exercise is important for muscular endurance, heart and lung health, blood flow, weight management, and more. Start these exercises at a level you can perform. For example, if you feel you are at an 18 on the Borg scale after 5 minutes of slow walking, it is time to take a rest. Try to work up to 30 minutes of these exercises, 5 days a week.

Walking: Walking is a great way to be active. You can walk alone or bring a friend or pet with you. Walking outside is a great way to get fresh air, but walking on a treadmill is good as well.

Biking: Ride a bike outside or use a stationary bike. Bike riding is a great exercise and is easy on your knees.

Balance Training

Balance training is important for all people for fall prevention. Smoking can have a negative effect on balance, so it is important to re-train this system. Perform these balance training exercises with someone that can assist you if needed in the house. Having a spotter is important and it is also a good idea to stand at a counter, near a rail, or in a corner, so that you can catch yourself if you lose your balance. Try to work up to 3 sets of 60 seconds for these exercises.

Single leg stance



Try to build up the amount of time you can stand on one leg. If this activity becomes easy, try to perform with eyes closed. Make sure to follow all recommended safety precautions.

Strengthening

Strengthening exercises are important to build muscle strength, improve muscle endurance, build strong bones, improve overall function, and improve the health of heart and lungs. Do these exercises for sets of 15 repetitions. Work up to 3 sets of each exercise. If it is too easy for 3 sets of 15 repetitions, it is time to increase the difficulty. Always perform these exercises with a responsible person that can assist you if needed.

Mini Squats



While holding onto a counter or pole, sit back into a squat as if sitting into a chair. This exercise is to strengthen your legs. Make sure to keep your knees from crossing over the front of your foot to protect your knees. Follow all safety precautions.

Scapular Retraction



Almost all people can benefit from this exercise to improve posture. This exercise will strengthen the muscles between your shoulder blades and help to improve posture. To perform this exercise, sit up tall with good posture or perform in standing. Squeeze the shoulder blades together holding for a count of 2 seconds, relax, and repeat. Follow all safety precautions.

Posterior Pelvic Tilt



This exercise is to strengthen your core muscles and can help to relieve low back pain. The core muscles are important for any motions that the body makes. To perform exercise, press the small of your back into the floor, hold for a count of 10 seconds, relax, and repeat 10 times.

Stretches

Stretching helps to keep your tissues healthy and promotes proper posture. Hold stretches for 3 sets of 30 seconds each.

Visit our website at: IMGPT.COM for a complete list of Home Exercise Programs!!