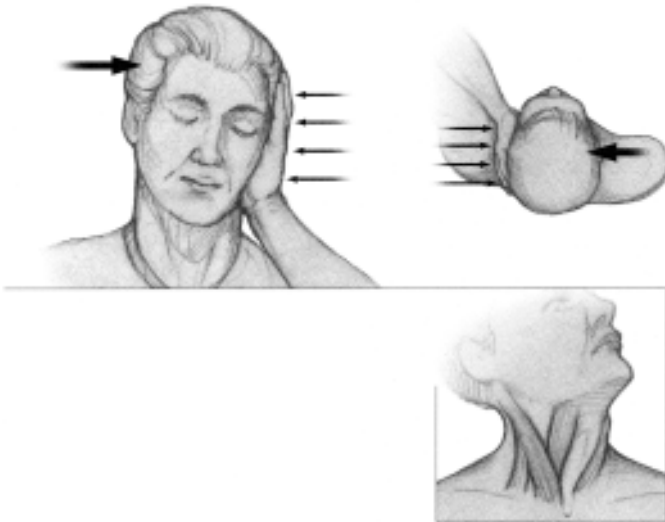


A First Approach to Neck Pain



The Neck GASS Program

A First Approach to Neck Pain

Nearly everyone experiences neck pain at some time in their life. Pain or disability can be caused by injuries sustained at home or work, while involved in sports and recreation, during accidents and falls, or from medical conditions such as arthritis, osteoarthritis or osteoporosis. In most cases, neck pain can be resolved through medical management, exercise, physical therapy and other related treatments. On occasion, surgical treatment is appropriate.

Factors that increase your risk of neck pain:

- Heavy lifting
- Being overweight
- Sitting for long periods of time
- Driving
- Smoking

What is the G.A.S.S. Program?

GASS is a four-point program consisting of:

- I. **G**eneral Health Promotion
- II. **A**erobic Exercise
- III. **S**tretching Exercises
- IV. **S**trengthening Exercises

Why is the GASS program important?

Many patients find pain relief through this program. It can help them in two ways: first, by decreasing or eliminating pain and second by helping them recover more quickly if surgery should become necessary. Surgery is always a treatment of last resort. Strict adherence to each portion of the four-point program is essential to your recovery from neck pain.



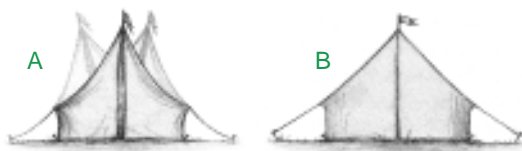
Of the many people with neck pain, few will require surgery. Most can be treated by the lifestyle changes outlined in the GASS program.

How Your Spine and It's Muscles Work

Your neck (cervical spine) is supported by many muscle groups that help your neck make a wide range of movements (Fig. A). Together the muscles on the front and back of the body support the cervical, or neck, portion of your spine. They give it stability, flexibility and support.



Fig. A



The spinal column can be compared to a tent pole in a windstorm. The ropes of tent A are not pulled tight allowing too much motion during the windstorm. Notice the ropes of tent B are supportive and strong. Therefore, if your muscles supporting your spine are weak like the tent ropes (tent A) your spine may also experience excessive motion on one side or another and a muscle imbalance may occur. Your spine will not be able to tolerate daily wear and tear, as the tent will not be able to tolerate remaining upright in the windstorm. The tent functions better if the ropes are tight. You may function better, perhaps without pain, if the muscles supporting your spine are tight.

I. GENERAL HEALTH PROMOTION

Improving your general physical well being translates into improving your overall health. This is done by quitting smoking and achieving or maintaining a healthy weight. These changes help reduce pain and speed recovery after surgery, should it be necessary.

Weight Loss and Nutrition

Managing your weight and eating healthy will contribute to your overall well being and pain reduction. Doing this means making changes in eating habits. With a positive attitude, these adjustments can be very reasonable. A registered dietician (a personal specializing in nutrition) can provide education about the benefits of healthful eating, help you plan meals that meet your needs and show you how to incorporate other small but important modifications into your diet. For tips on healthy nutrition see pages 8 and 9.

Quitting Smoking

For most people, it's hard to quit smoking. Your body is used to getting regular doses of nicotine from cigarettes. When you stop smoking, your body craves it. This is called an addiction.

By quitting smoking, you can:

- Decrease or eliminate spinal pain. Several studies have shown a correlation between smoking and spinal pain. The amount you smoke does not seem to matter. Smoking even small amounts seems to be harmful.
- Prolong your life.
- Improve your overall health and decrease your chances of getting lung cancer, throat cancer, emphysema, heart disease, high blood pressure, ulcers and gum disease.
- Reduce your children's risk of developing diseases related to second-hand smoke.

There are additional tips to help you quit smoking on page 10. Use the Progress Record in the back of this booklet to help you keep track of your improvements in smoking cessation. If you are having difficulty quitting, talk to your physician about the types of support available and pharmacological treatments that may help.

II. AEROBIC EXERCISE

An aerobic exercise program can help reduce pain and also leaves you with a sense of accomplishment and an improved self-image. Aerobic exercise is any physical activity that elevates your heart rate for a sustained period of time.

How does aerobic exercise benefit you?

- Increases energy levels
- Improves your body's use of oxygen
- Lowers blood pressure
- Strengthens your heart and lungs
- Strengthens and builds bones
- Improves sleep
- Improves endurance
- Reduces body fat
- Reduces stress, tension, anxiety and depression
- Improves self-image and self-esteem
- Increases muscle tone and strength

How much exercise will I need?

Only 20 to 30 minutes of activity, at least three times each week is required (preferably on different days). If you are just beginning a program, start your activity at 20 minutes each session and build up to 30 minutes gradually.

Before you begin

Make sure to start out slowly, warming up for 5 to 10 minutes by stretching or slowly beginning the exercise. Cool down at the end of your workout by slowing down or stretching. **DO NOT STOP EXERCISING ABRUPTLY.**

Choose an activity you like, you will be more likely to stick with it.

Any of the following aerobic exercises can be used:

- Walking
- Running
- Cycling
- Swimming

As with all activities in this program, be sure to record your exercise progress using the charts on page 11.

Consult your primary care physician before beginning any exercise program. Be sure to tell him or her about any other conditions you have and all medications you are taking.

III. STRETCHING EXERCISES

The direct cause of neck pain is often the result of one or more of the following:

- 1 - A frozen-joint-like syndrome associated with inactivity of the muscle.
- 2 - Muscle strain, occurring when a muscle gets too much use.
- 3 - Muscle spasms that take place beside the spinal column and between the shoulder blades.

Stretching exercises can help in relieving and managing these causes of neck pain. They also improve the mobility of your joints and muscles. As with the other portions of the GASS program, progress indicates improvement, motivation and an increased potential for good results.

Start each section of the program at a level that's right for you, then progress gradually forward. Stretching too much, losing an extreme amount of weight and exercising too intensely at first are not helpful and may cause more injury, weight gain and eventually more pain.

Stretching Exercise Program:

The following stretches should be done twice a day and held for 10 - 20 seconds.

Flexion: (Fig. B) Let the arms and shoulders fall forward and down. Let gravity push them down by relaxing and "letting go".

Extension: (Fig. C) While lying on your back and your head extended over the edge of a bed, once again relax your neck, allowing your head to extend downward.

Lateral Bending: Slowly bend your neck to one side moving your ear closer to your shoulder. Now repeat with the other side. (Not illustrated).



Fig. B



Fig. C

IV. STRENGTHENING EXERCISES:

To be successful with the GASS program, it is important to have an appropriate strengthening program. The muscles along the spine work together to provide support and prevent the spine from moving too much. Certain activities, like running or heavy lifting, can make some muscles stronger than others. When this happens, too much stress is placed on the spine or the weaker supporting muscles, resulting in pain.

Doing resistance exercises means using the force of resistance to building strength. When doing these exercises, you will use the force of your hands and arms as resistance against your head and neck in multiple positions (Figs. D & E). Increasing the resistance to movement and repetitions increases strength, support and flexibility of the spine. By strengthening the proper muscles, you can “tighten the tent ropes”, reduce pain and slow the aging process of your spine.

Strengthening Exercise Program:

For example, in Fig. E, as you try to move your chin to your chest, use your hand and arm to resist this head movement so that your head does not move at all. Your head will stay in a neutral position while pushing against your hand. Apply this strategy to each of the exercises depicted.

Considerations when doing strengthening exercises:

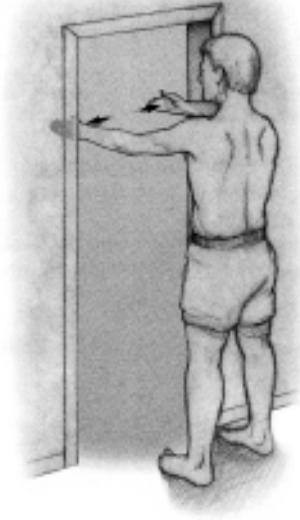
- Your goal is to hold this position for one minute. When first doing the exercises, you may be able to hold them for only two seconds.
- With each new attempt you should be able to hold the position longer than the previous attempt, while applying greater resistance by applying hand pressure.
- Keep your head and neck in a neutral position. It is easy to do this by looking at yourself straight ahead in a mirror.
- Fatigue or pain should limit the activity. This means holding the position for as little as one second or greater than two minutes.
- You may notice an increase in soreness of the neck. This is because you have put new demands on these muscle groups, and is a good indication that strengthening is needed. Being consistent with your exercises and continuing the program will help relieve this soreness. If after several days the pain does not subside, you should be less aggressive with the activity and notify your physician, but DO NOT STOP THE PROGRAM.

Record the amount of time you are able to hold each of the eight positions in seconds in the Progress Record on page 11.

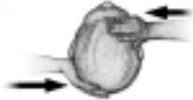
Conclusion

Remember that during this program, your neck muscles may be performing activities that they are not used to doing. You may experience some stiffness or pain at the beginning of the GASS program. You may do the stretching and strengthening exercises less aggressively, but DO NOT stop doing them.

Having a good understanding of what this program requires will help you actively participate and improve. If you have any questions about the GASS program, be sure to ask your doctor before you continue. Maintaining a positive outlook and keeping track of your progress are essential to improvement.



With arms at shoulder height push arms against door frame with as much force as possible.



Place hands as illustrated and try to push hands together. Resist rotation of head by hands. Switch hand position to rotate head in opposite direction. (Perform for clockwise and counter-clockwise resistance).

Place hand as illustrated and create resistance on cheek by pushing hand and hand toward one another (keep head in neutral position). (Perform for right and left side resistance).



Create resistance with hands at back of head.

Create resistance with hand under chin.



Fig. E

Create resistance by placing hand on forehead.

Maintaining a Healthy Neck

Once treatment is under way, it is strongly recommended that you keep your neck strong and healthy. The following tips are useful for almost everyone with neck pain.

- Continue to do stretching and strengthening exercises two to three times per week for the rest of your life.
- Vary your position frequently from sitting to standing. Break up long periods of sitting by moving around periodically.
- Learn correct posture and use it at all times.
- Learn and perform exercises that stretch and strengthen the muscles of our spine.
- If neck pain awakens you, try changing positions. A firm mattress and a comfortable pillow can be helpful.
- If you must lift something heavy, don't bend at the waist. Bend your knees, keeping your back straight. Hold the object close to your body and lift using the power in your legs, rather than your back.
- When standing for long periods, put one foot on a stool.
- Don't slump or slouch when driving - sit up straight. It may be helpful to place a cushion at belt level (behind the back) for lumbar support.
- See your doctor if pain persists, or if you have any questions.

Nutritional Tips – Guidelines:

Here are some guidelines and goals to help you get started:

- Don't starve yourself - you may end up bingeing, but also losing muscle instead of fat.
- Choose foods low in total fat, saturated fat and cholesterol.
- Don't choose a diet that restricts certain food. It may also lack a lot of important nutrients your body needs.
- Try to lose weight slowly, rather than all at once. People who do tend to keep it off.
- Record your weight at the same time everyday. It is best to do this first thing in the morning.

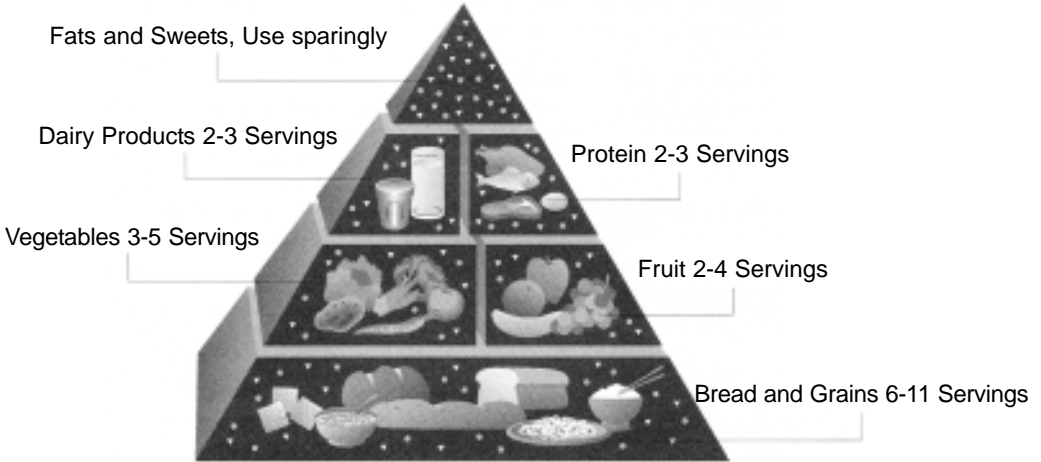
Goals for Healthy Eating:

- Set realistic weight loss goals, such as a 1 to 2 pound weight loss per week.
- Eat fewer calories by cutting down on portions and decreasing the total amount of fat you eat to 30% or less of your total daily calories.
- Do not skip meals.
- Keep low-calorie, low-fat snacks on hand.
- To ensure you are eating healthy, keep an accurate food journal. Write down everything you eat or drink. Be honest and accurate, otherwise the journal is not as helpful. The food journal will help you learn about your eating habits and help you assess the food choices you are making.
- Eat a variety of foods to get all the nutrients you need. The Food Guide Pyramid provides an example of the number of servings you should eat from each food group every day. When weight loss is desired, aim to select the lower number of recommended servings, but remember to select from all food groups daily.

How can I lose weight?

- When the amount of calories you eat equals the amount of calories you burn, your weight is maintained. Therefore, if you consume fewer calories than you burn, you will lose weight. For more information visit: www.clevelandclinic.org/health/search/default2.asp

FOOD GUIDE PYRAMID



Tips for Quitting Smoking

How can I quit?

There's no one way to quit that works for everyone. Setting a plan will help.

- Pick a date to stop smoking and then get ready for it.
- Record when and why you smoke. You will come to know what triggers your urges to smoke.
- Record what you do when you smoke, like during a coffee break or after dinner. Try smoking at different times and different places. Breaking the ties between smoking and daily activities will also help you break your body's need for nicotine.
- List your reasons for quitting. Read over the list before and after you quit.
- Seek the support and encouragement of family, friends and healthcare provider.
- Try group or individual counseling or classes. These are offered through the Cleveland Clinic Department of Psychiatry and Psychology or through your local health care facility. To register for a Cleveland Clinic Smoking Cessation Program, call 216.444.5812 or 1.800.223.2273, ext. 45812.
- Ask your doctor about medications that can help you stop smoking and lessen the urge to smoke. They may not be appropriate for everyone, but they can ease the transition. These include: Bupropion SR and nicotine gum, inhalers, nasal spray, and the patch.

When you quit

- On the day you pick to quit, start that morning without a cigarette.
- Don't focus on what you are missing. Think about what you are gaining.
- Tell yourself you are a great person for quitting. Remind yourself of this when you want to smoke.
- When you get the urge to smoke, take a deep breath. Hold it for ten seconds, then release it slowly.
- Keep your hands busy. Doodle, play a sport, knit or work on a computer.
- Change activities that were connected to smoking. Take a walk or read a book instead of taking a cigarette break.
- Don't carry your lighter, matches or cigarettes.
- Go to places that don't allow smoking, such as museums and libraries.
- Eat low-calorie, healthful foods when the urge to smoke strikes. Carrot and celery sticks, fresh fruits and fat-free snacks are good choices.
- Drink a lot of fluids. Cut down on the alcohol and caffeine. They can trigger urges to smoke. Select water, herbal teas, caffeine-free soft drinks and juices.
- Exercise. Exercising will help you relax.
- Hang out with non-smokers.
- Get support for quitting. Tell others about your milestones with pride.

How will I feel when I quit?

Withdrawal symptoms will be strongest when you first quit. They should go away within a few weeks. You may:

- Crave the nicotine in cigarettes
- Feel very hungry
- Cough often
- Get headaches
- Have difficulty concentrating

Be prepared for relapse or difficult situations

- **Alcohol.** Avoid drinking alcohol. Drinking lowers your chances of success.
- **Other smokers.** Being around smoking can make you want to smoke.
- **Weight gain.** Many smokers will gain weight when they quit, usually less than 10 pounds. Eat a healthy diet and stay active. Don't let weight gain distract you from your main goal—quitting smoking. Some quit-smoking medications may help delay weight gain.
- **Bad mood or depression.** There are a lot of ways to improve your mood other than smoking.

Conclusion

This booklet includes guidelines for promoting overall wellness along with aerobic, stretching and strengthening exercise instructions. By helping you develop a stronger, healthy neck, you are more resistant to injury and pain. Check with your physician before beginning any exercise program to make sure it is right for you.

This program is designed to help you return to your routine and full function quickly. Addressing pain early can help you minimize your chances of being debilitated from neck pain. Working with your physician and following a recommended plan of treatment are keys to finding relief.

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Disclaimer:

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- A medical approach focusing on non-surgical treatment of each patient.
- A medical spine specialist who coordinates the evaluation and treatment of each patient.
- Prompt initiation of active therapy.
- An emphasis on patient involvement in the treatment plan.
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- An outpatient physical therapy program.
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