

# ABOUT ARTHRITIS



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## LESSON ONE: INTRODUCTION

Welcome to this self study online program about all the issues regarding arthritis so that you can provide the very best hands-on care to people in your care.

This program includes core content, suggested activities that encourage creative problem solving, and quotes and jokes to entertain and lighten the learning process.

This program was originally a facilitator-led in-service training program with slides. These slides, where appropriate, have been incorporated into this online program to provide easy visual emphasis of key points.

You can complete the program with a colleague or mentor or as self study. A post completion test is included to ensure you fully understand the key points. If you get a question wrong, go back to the relevant section and make sure you understand the answer.

However, before completing the post-test, refer to the CHECK YOUR KNOWLEDGE section in order to make sure you understand the main ideas in the content. Once you are confident that you understand the content and have correctly completed the post-test questions, feel free to print out your certificate of accomplishment.

## What's the benefit for me?

This program is one of many we offer that can help you:

- Increase your knowledge about health care topics
- Develop greater confidence in your caring abilities
- Learn new useful skills for your job
- Enhance your job performance
- Improve your client's quality of life and health.

## DID YOU HEAR?

The teacher of the earth science class was lecturing on map reading.

After explaining about latitude, longitude, degrees and minutes, the teacher asked, "Suppose I asked you to meet me for lunch at 23 degrees, 4 minutes north latitude and 45 degrees, 15 minutes east longitude?"

After a confused silence, a voice volunteered, "I guess you'd be eating alone."

**Source: Aha! Jokes**  
<http://www.AhaJokes.com/>

## PRE-TEST

It helps to figure out how much you know before starting the program. In this way you will have an idea as to the gaps in your knowledge prior to reading the content. Please circle to indicate the best answer. Remember, at this stage, you are not expected to know all the answers:

1. What does the word “arthritis” mean?
  - a. A bone disease
  - b. Inflammation of the joint
  - c. An infectious disease
  - d. A viral disease
  
2. Which statement is most true?
  - a. Only old people get arthritis.
  - b. There is only one kind of arthritis.
  - c. The symptoms of arthritis are always the same.
  - d. People of all ages can have arthritis.
  
3. What is the best definition for “crepitus”?
  - a. A grating sound caused by bones rubbing together.
  - b. Swelling, warmth and pain of a joint.
  - c. The point where two bones meet.
  - d. A drug used to treat arthritis.
  
4. What is the common factor in all forms of arthritis?
  - a. Fever
  - b. Swelling of the joints
  - c. Joint and musculoskeletal pain
  - d. Arthritis starts at the site of a previous injury
  
5. Which of the following is a risk factor for osteoarthritis (OA)?
  - a. Age
  - b. Smoking
  - c. Viral infection
  - d. Diet low in calcium
  
6. At what age do most people with rheumatoid arthritis (RA) develop the disease?
  - a. Infants to school age
  - b. 20 to 40
  - c. 25 to 50
  - d. 70s and 80s
  
7. Which statement about RA is most true?
  - a. It mainly affects joints in the fingers, wrists and knees
  - b. Pain occurs with activity and improves with rest
  - c. The disease is common in persons who are obese
  - d. The disease only affects the joints in the body

## ANSWERS TO PRE-TEST

1. b.
2. d.
3. a.
4. c.
5. a.
6. c.
7. a.

SOMETHING TO THINK ABOUT...

Only I can change my life. No one can do it for me.

Carol Burnett

## ABOUT ARTHRITIS

As a healthcare worker, you have probably cared for many clients with arthritis. You may know that arthritis causes pain in the joints. But what else do you know about the disease? Many people have false ideas about arthritis. Common fallacies are that:

- There is just one kind of arthritis
- The symptoms of arthritis are always the same
- Only old people get arthritis

Let's look at these beliefs one by one.

### ***Is there just one kind of arthritis?***

No. Over 100 conditions fall under the heading of "arthritis". Some forms of arthritis cause only mild distress and may affect just one joint. Others can have a severe effect on the entire body. Some forms of arthritis can result in deformity and disability.

### ***Are the symptoms of arthritis always the same?***

Despite what many people believe, the symptoms are not always the same. The disease pattern, the severity of pain and disability, and the site of the symptoms can differ for different forms of arthritis. For example, in gout, one type of arthritis, the main symptom is often sudden, acute pain *in the great toe*.

### ***Do only old people get arthritis?***

Older people are more likely to have arthritis. It is not just a disease of the old, however. Many young adults in the prime of their lives develop arthritis. Some forms of the disease even affect children.

### **CONSIDER FOR A MOMENT ...**

You may have other false ideas about arthritis. List two or three statements about arthritis that you believe are true. Review your list once you have completed this module. Ask yourself if you still believe those statements are true.

## LESSON TWO

### KEY TERMS

#### Alternative medicine

Treatment methods used in place of conventional medicine

#### Autoimmune disease

A disease caused by problems with the immune system. The body fails to recognize its own cells and creates antibodies against them.

#### Complementary medicine

Treatments used to complement (not replace) conventional medicine

#### Crepitus

A grating sound and sensation caused by bones rubbing together

#### Glucosamine and chondroitin

A nutritional supplement that is widely used to treat the symptoms of osteoarthritis

#### Inflammation

Swelling, warmth and pain of the joint

#### Nodule

A small, rounded mass

#### NSAIDs

Non steroidal anti-inflammatory drugs

#### Remission

A period of time when symptoms of a disease disappear. A remission does not usually last long.

#### Rheumatoid nodules

Firm, non tender nodules that are most often found in the wrist, knee, elbow, and finger joints

#### THR

Total hip replacement

#### TKR

Total knee replacement

## WHAT IS ARTHRITIS?



The word *arthritis* means “inflammation of the joint”.

**Inflammation** causes swelling, redness, warmth and pain in the joint(s). Some forms of arthritis do not cause these symptoms. Most forms, however, do cause inflammation of the affected joints as the body attempts to respond to injury. The common factor in all forms of arthritis is joint and musculoskeletal pain.

Some types of arthritis occur more often than others. This module discusses two of the more common forms of arthritis – osteoarthritis (OA) and rheumatoid arthritis (RA).

## HOW JOINTS WORK

Now that you know that arthritis affects the joints, let’s look at how the joints work. A joint is any point where two bones meet. There are over 100 joints in the body. Some of these joints move slightly or not at all. Others move freely. Synovial joints are the most complex type of joint. They are found in many parts of the body, including the knees, shoulders, hips, and fingers. Synovial joints consist of:

- Cartilage: a smooth surface that cushions the end of the bones and acts as a shock absorber
- Joint capsule: a membrane sac that encloses the joint space and retains fluid
- Joint space or joint cavity: a space between the ends of the two bones that contains synovial fluid
- Synovium: an inner lining inside the joint capsule which produces synovial fluid
- Synovial fluid: a fluid that nourishes the joint and keeps it moist
- Ligaments, tendons, and muscles: tissues that allow the joint to move and that help keep the bones stable. Ligaments attach one bone to another. Tendons connect muscles to bone.

In a healthy joint, all of the parts of the joint work together to reduce friction. The joint capsule holds everything in place and movement occurs without pain.

## LESSON THREE: OSTEOARTHRITIS

Osteoarthritis, or OA, is the most common form of arthritis. This chronic disease affects about 80% of Canadians by the time they reach the age of 75. In the U.S. nearly 21 million people over the age of 45 have OA. It has been estimated that 41 million Americans 65 years and over will have OA by the year 2030.

### CONSIDER FOR A MOMENT ...

How many people with OA do you know?

OA is a non-inflammatory disease of the joints that results in a breakdown of cartilage over time. You've already learned that cartilage cushions the end of the bones and acts as a shock absorber. In a healthy person, cartilage breaks down and then restores itself. In the person with OA, cartilage breaks down much faster than it can be repaired. When cartilage is gone, bone surfaces grate together causing pain. Pain is also felt in the muscles and supporting tissues. Bony spurs grow from the bone edges, leading to changes in the shape of the bone and joint, and synovial fluid increases.

### *What are the Risk Factors for OA?*

The exact cause of OA is not known. Several factors, however, called "risk factors", make it more likely that someone will get OA. These factors include:

#### Age

80% of people over the age of 65 have some degree of OA that can be seen on an x-ray. As the number of older adults increase, we can expect that OA will become more common over time.

#### Obesity

Obese persons are at increased risk for OA, mainly OA of the knees. Standing or walking exerts a pressure of up to 6 times a person's body weight on the knees and up to 3 times the body weight on the hips. So you can see why obesity can lead to joint problems.

#### Genetics

OA is not thought to be a genetic disease, although there is an increased risk for those whose parents had the disease.

#### Injury or trauma

An example would be an injury caused by lifting over a period of time.

### Lack of exercise

Regular exercise lowers the risk of OA in several ways. It helps strengthen supporting muscles, tendons and ligaments, it promotes cartilage growth and it assists in weight control.

## CONSIDER FOR A MOMENT ...

Do you have any of these risk factors for OA?

### *What are the Symptoms of OA?*

OA can be present for many years before symptoms appear. The first symptom of OA is often the slow onset of aching joint pain. OA most often affects joints in the knees, hips, spine, ankles, and hands. Pain often occurs with activity and is relieved by rest. Joint stiffness occurs after periods of inactivity. Stiffness improves as the person moves around.

### *Diagnosing OA*

There is no one test for OA. The diagnosis is based upon the following:

#### History

The history includes the symptoms. There may be local pain and stiffness with little or no swelling. The affected joints are usually weight-bearing ones as well as joints in the spine and in the hand. The pain may occur with activity but improve with rest .

#### Physical exam

Some joints may be enlarged. Limited range of motion may be present. **Crepitus** is a grating sound and sensation caused by bones rubbing together. It may be heard and felt upon movement of one or more affected joints. Advanced disease may cause some joints to “lock” as the person walks. The disease can also result in bony growths in the hands.

#### X-ray findings

X-rays may show bony spurs and a narrowed joint space due to wearing away of cartilage.

#### Lab findings

A lab test can be done to rule out other types of arthritis such as RA and gout.

## Treatment for OA

There is no cure for OA. The disease, however, can be managed. Below are some steps for managing OA:

### Weight loss

This is helpful if the person is obese. Excess weight causes stress on weight-bearing joints such as the hips and knees.



### Exercise

Exercise allows synovial fluid to warm and thin out. This makes it easier for cartilage in the joint to absorb the fluid. As the cartilage absorbs fluid, it swells and acts as a better cushion against friction. Exercise allows cartilage to do its job. Only through exercise can cartilage get rid of waste products and do the job it is supposed to do. More than one kind of exercise may be helpful. *Flexibility* exercises help keep the joints from becoming stiff. *Strengthening* exercises help maintain or increase strength. Low-impact *aerobic* exercises such as walking, swimming, water aerobics and stationary biking, have many benefits. Aerobic exercise helps maintain a healthy weight, improve overall fitness, and reduce pain. It also promotes strength and flexibility.



Before starting any exercise program, it is important to consult a physician to ensure the best plan for the person with arthritis.

### Medication

- Acetaminophen is often used to treat OA. Tylenol is a common form of acetaminophen. It is used for pain relief but does not reduce inflammation. Acetaminophen should be taken only as directed. Overdosing can result in liver damage.
- Non steroidal anti-inflammatory drugs (**NSAIDs**) help reduce stiffness, pain and swelling of the joints. Long-term use at high dosages, however, has been linked to possibly serious side effects. These side effects include internal bleeding, high blood pressure and heart and kidney problems. Vioxx, one of the most widely used NSAIDs, was freely withdrawn from the worldwide market by Merck & Co. Inc. in 2004. The decision to withdraw Vioxx was based upon findings from a drug trial that showed an increased risk of heart attack and stroke after 18 months. Encourage clients on NSAIDs to learn about the possible side effects and to report any that are present to their doctor.
- Stronger pain relief meds (e.g. long-acting opioids) are sometimes ordered for severe pain.



- A topical pain reliever works to reduce pain. The cream is rubbed into the skin over a joint. It is often used to help control pain in the knees and hands.
- Steroids are sometimes injected into acutely inflamed joints. The process should be done no more than four times in a one-year period.

#### Glucosamine and chondroitin

This is a nutritional supplement that is widely used to treat the symptoms of OA. Further research is needed to find out how well the product works.

#### Heat or cold therapy

Some clients find that applying heat (e.g. hot shower) helps reduce joint pain. Cold treatments to a joint may help decrease the swelling and pain.

#### Surgery

This is sometimes needed to restore joint motion when the disease has extremely limited joint function. Surgery may involve cleaning or removing damaged tissue or realigning or fusing joints. Fusing involves joining two bones together. Replacement surgery involves removal of part or all of the damaged bone and replacing it with artificial products. Total hip replacement (**THR**) and total knee replacement (**TKR**) are two common types of surgery done to restore joint function. If you are caring for a client following surgery, such as a THR or TKR, be sure to follow the post-op treatment plan for that person.



#### CONSIDER FOR A MOMENT ...

Have you ever cared for clients who had a THR or TKR procedure? If so, what role did you play in providing follow-up care to the client?

## LESSON FOUR: RHEUMATOID ARTHRITIS

Rheumatoid Arthritis (RA) is a chronic, systemic and inflammatory disease and is classified as an autoimmune connective tissue disease. An **autoimmune disease** is one caused by problems with the immune system. The body fails to recognize its own cells and creates antibodies against them. These new antibodies cause local and systemic reactions.

RA causes inflammation in the joints and joint deformity. The disease is not as common as OA although about 3 million people in the U.S. have it.

In Canada RA affects about 1 of every 100 persons. The disease is more common among women than men (3:1 ratio). By the age of 65, though, men are equally affected. The usual age of onset is 25 to 50, although it can affect people of all ages. It even occurs sometimes in toddlers.

### ***What are the Risk Factors for RA?***

It is believed that more than one factor causes RA. Some, but not all, of the people affected by RA have other family members with the disease. It is possible that bacteria or a virus may trigger the disease, although this has not been definitely proven.

### ***What are the Symptoms of RA?***

RA starts out with increasing fatigue for most affected persons. Other symptoms are widespread musculoskeletal pain, low-grade fever, and decreased appetite. Weight loss occurs. The disease attacks the joint lining (synovium), causing inflammation and damage to cartilage and bone. The joints may also be swollen and range of motion decreased. RA causes pain and stiffness in the joints. Unlike OA, the pain with RA does not go away with rest.

Joint stiffness occurs after periods of inactivity. Morning stiffness may take a long time to resolve. Joints on both sides of the body tend to be affected. For example, if one knee is affected, the other knee will be affected as well. **Rheumatoid nodules** tend to occur. A nodule is a small, rounded mass. Rheumatoid nodules are firm and non tender. They are most often found in the wrist, knee, elbow, and finger joints. Joint deformities occur over time.

RA is often marked by flare-ups and **remissions** that sometimes last for many years. Over time, the episodes of inflammation lead to a loss of joint function. The disease is not limited to the joints. RA affects connective tissue anywhere in the body - the heart, lungs, kidneys, eyes, and skin. The joints are mainly affected.

### ***Diagnosing RA***

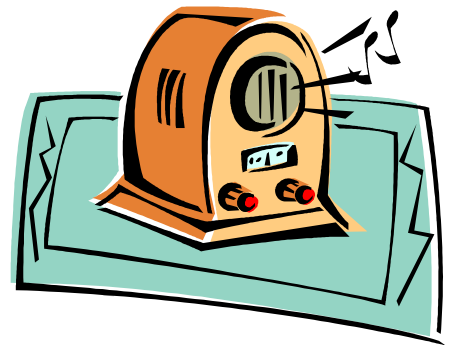
Diagnosis stems from the symptoms, the pain pattern, and lab and x-ray results. A lab test to detect the rheumatoid factor (RF) can help to diagnose RA. It may take some

time, however, for RF levels to rise in someone affected by RA. As well, RF has been found in persons with no signs of the disease.

### ***Treatment for RA***

Early diagnosis and treatment can help prevent joint damage. Treatment includes meds, rest, an exercise program, protection of the joints and possibly surgery if other treatment measures do not work. The aim is to control pain, maintain movement of the joints, and prevent deformities from occurring. Rest must be balanced with an exercise program.

Did you know that stress tightens muscles and worsens pain? On the other hand, relaxation techniques, such as meditation, listening to music, or deep breathing exercises may help to reduce pain. Heat or cold therapy may also be useful for RA. Different types of meds are used to treat the disease. Clients and their caregivers should be aware of potential side effects of any drugs and report these to the physician.



## How do OA and RA differ?

<b>Osteoarthritis</b>	<b>Rheumatoid Arthritis</b>
<ul style="list-style-type: none"><li>• The disease involves the breakdown of cartilage over time</li><li>• Usually affects joints on one side of the body</li><li>• Mainly affects weight-bearing joints (e.g. hips, knees, ankles), spine and joints in the fingers</li><li>• Common symptoms are local pain and stiffness of the joints although swelling is usually not present</li><li>• Pain occurs with activity and improves with rest</li><li>• Age of onset is generally 40s and 50s</li><li>• The disease does not affect any other systems</li><li>• Common in persons who are obese</li></ul>	<ul style="list-style-type: none"><li>• A progressive autoimmune disease that causes inflammation of the lining of the joints</li><li>• Usually affects joints on both sides of the body (e.g. both knees, both hips)</li><li>• Mainly affects joints in the fingers, wrists, and knees</li><li>• Common symptoms are joint pain, tenderness, redness, warmth and swelling</li><li>• Rest does not improve pain. Pain is also common at night.</li><li>• Usually strikes between the ages of 25 and 50, although it can affect people of all ages.</li><li>• The disease is systemic and may affect the lungs, heart, and skin</li><li>• Affected persons are usually of average to below average weight for their size</li></ul> <p>(Black, Hawks, &amp; Keene, 2001)</p>

## LESSON FIVE: CARE CONSIDERATIONS

Now that you know more about arthritis, what can you do to assist clients with OA and RA?

*Where possible, assist clients to take an active role in managing the disease.*

Clients and their families should learn about arthritis, find out what works best for chronic pain, and take part in the treatment program. An arthritis self-management program is offered in most parts of Canada. This is a six-week self-help program. It gives people with arthritis a chance to learn more about the disease and also to meet others in the same situation. Clients who wish to find out about programs in their area may phone the Arthritis Society at 1-800-321-1433. Chapters of the Arthritis Foundation in the U.S. offer similar sessions. The contact number for the Foundation is 1-800-283-7800.

*Encourage clients to inform their health care providers about all the treatments they are using.*

Arthritis is a chronic disease with no known cure. Despite medical treatment, many people with arthritis have pain, disability, deformity, and decreased quality of life. Many arthritic sufferers have turned to alternative and/or complementary medicine to try and find a cure or to improve the quality of their lives. **Alternative medicine** refers to treatment methods used in place of conventional medicine. Conventional medicine is taught in western medical schools. **Complementary medicine** is used to complement (not replace) conventional medicine.

Various types of alternative and complementary treatments are in common use today. Three examples are herbal medicine, acupuncture and reflexology. Herbal medicine is the use of certain herbs for their medicinal effects. Acupuncture is a traditional Chinese treatment used to decrease pain, control nausea and aid relaxation. It involves the use of thin needles to apply pressure to certain points of the body. Reflexology is a way of treating certain conditions by massaging the soles of the feet or the palms of the hands. It follows principles similar to acupuncture.

Side effects sometimes occur from mixing treatments (e.g. medicinal herbs and prescribed and over-the-counter drugs). It's important for clients to inform their health care providers about all the treatment methods they are using.

*Advise clients not to ignore pain.*

Chronic pain can be a serious challenge for many persons with arthritis. Chronic pain can be mentally and physically exhausting. Advise clients to take meds as directed and to

rest joints that are painful and swollen. Remind clients that stress may increase muscle tension and worsen any pain. Relaxation techniques may help to reduce anxiety. Some clients find massage therapy helpful. Others listen to music, practice deep breathing exercises or meditation. Ask what has helped in the past and if there is any way that you can assist the client.

*Remind clients that it's important to balance activity and rest.*

Chronic pain can be very tiring. Tell your clients that it's okay to take a short rest period if they are tired. It is also important to get enough sleep at night.

*Assist with activities of daily living.*

As the disease progresses, your client may have trouble doing simple activities. Dressing may pose a problem. The client may need to change the type of clothing that is usually worn. Velcro fasteners, rather than buttons or zippers, make it easier for the client with pain or limited hand movement to dress alone. Large-handled eating utensils, raised toilet seats, and higher chairs are examples of how equipment can be adapted to assist with daily living. Canes or walkers may help the person with walking. Joint problems make falls more likely. Ensure a clear path for walking. A number of health care professionals (e.g. an occupational therapist or a physiotherapist) can be quite helpful in suggesting changes to meet the needs of clients with arthritis.

*Observe and report signs of depression.*

Chronic pain, disability and deformity may lead to feelings of depression that may require medical help. The depressed client may look sad and cry often. Other common signs are feelings of despair, lack of energy, changes in appetite, disturbed sleep pattern, and decreased sexual interest. If your client is depressed, report your findings. Take threats of suicide seriously. Notify the appropriate person within your agency right away.

*Assist with any other aspects of the treatment plan.*

Exercise or diet may be a part of the client's daily routine. Or perhaps your client is recovering from surgery such as a THR or a TKR. Follow the treatment plan for your client. Ask questions if you are not sure about any aspect of your client's care. Report any unusual or surprising findings to your supervisor (or other appropriate person in your agency).

## CASE EXAMPLE



You have been assigned to care for a 75-year-old man in his own home. Mr. Clarke has OA. The disease has affected the joints of his hands so that he requires help with activities of daily living. He uses a cane to assist with walking.

Mr. Clarke tries to do as much as he can for himself during the day. He dresses himself in the morning but has trouble doing so. He often becomes tired in the afternoons but refuses to “give in” to his illness by resting.

Several of Mr. Clarke’s friends also have OA. One of these friends recently told him about a new herb that “does wonders” for improving the symptoms of OA. Mr. Clarke tells you that he is going to get some of that herb too. You know that he also takes meds prescribed by a physician.

*From the information given in the case example, identify four key issues (possible concerns) related to this client’s care. How can you help with each of these issues?*

## SUGGESTED ANSWERS TO CASE EXAMPLE

The column on the left identifies four key issues outlined in the case example. The column on the right indicates how you can assist with each issue.

<b>Key Issue</b>	<b>How You Can Help</b>
Use of a cane	Ensure a clear pathway to prevent falls.
Has trouble dressing himself	Inquire about the use of clothing (e.g. pants with Velcro fasteners in place of buttons) that would make it easier for him to dress himself.
Tired in the PM but won't rest	Reassure him that it's okay to take a nap in the PM if he is tired.
Planning to use herbs. Already on meds prescribed by her physician.	Encourage him to inform his physician about herbal use to prevent possible side effects from mixing the two treatments.

## RESOURCES

Below are web sites from various arthritis-related organizations. These web sites provide important information to persons affected by arthritis and/or to professionals involved in their care.

### **American Pain Foundation (APF)**

<http://www.painfoundation.org/default.asp>

- a non-profit organization that provides information and that advocates for clients with pain

### **Arthritis Foundation**

<http://www.arthritis.org>

- provides leadership in the prevention, control, and cure of arthritis and related diseases. Also supports arthritis research. Offers a wide number of community-based services to improve the lives of those with arthritis.

### **Association of Rheumatology Health Professionals (ARHP)**

<http://www.rheumatology.org/arhp/index.asp>

- an association of non-physician healthcare professionals focusing on rheumatology

### **Johns Hopkins Arthritis Centre**

<http://www.hopkins-arthritis.org>

–provides an educational program for healthcare professionals about diseases that cause arthritis and their treatments

### **National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)**

<http://www.nih.gov/niams>

- leads the federal government's research efforts in arthritis and musculoskeletal and skin diseases

### **The Arthritis Society**

[www.arthritis.ca](http://www.arthritis.ca)

- provides different treatment and education programs for people with arthritis

**CONSIDER FOR A MOMENT ...**

**What arthritis resources are available for clients and families in the area where you live?**

## IN CONCLUSION

Despite what many people believe, arthritis is not a single disease. It is a broad term that covers over 100 diseases and conditions. Arthritis affects people of all ages but is more common among older adults. With our aging population, we can expect to see many more people with arthritis over time.

There is no cure for arthritis. Clients need to learn more about this chronic condition. They also need to become actively involved in the management of it. Many volunteer organizations provide information and support to interested persons. Conventional and alternative treatment options are available. Healthcare workers can provide information, understanding and support to clients with arthritis.

## CHECK YOUR KNOWLEDGE

1. What is “arthritis”?
2. How do joints work?
3. How do OA and RA differ?
4. Describe four treatment options for arthritis.
5. How would you care for a client with arthritis?



## POST-TEST

1. Which of the following indications best describes inflammation of a joint?
  - a. Enlarged and stiff joint
  - b. A grating sound in the joint
  - c. Limited movement in the joint
  - d. Swelling, redness, warmth and pain in the joint
2. How many people over the age of 45 in the U.S. have OA?
  - a. Nearly 7 million
  - b. Nearly 21 million
  - c. 41 million
  - d. 210 million
3. How can you lower your risk of OA?
  - a. Exercise regularly
  - b. Get lots of sleep at night
  - c. Begin relaxation classes
  - d. There is nothing you can do to lower your risk as OA is a genetic disease.
4. Which statement about RA is most true?
  - a. The pain with RA does not go away with rest
  - b. It is common in persons who are obese
  - c. It usually affects joints on one side of the body
  - d. It mainly affects weight-bearing joints
5. What is the best description of “alternative medicine”?
  - a. Another name for conventional medicine
  - b. Treatment methods that complement conventional medicine
  - c. Treatment methods used in place of conventional medicine
  - d. A type of medicine practiced in Japan
6. Which strategy would NOT be helpful for the RA client with a painful and swollen joint?
  - a. Vigorous exercise while the joint is inflamed
  - b. Rest the joint that is painful and swollen
  - c. Relaxation techniques to reduce stress
  - d. Meditation
7. What advice would be most helpful for an obese client with OA who has decided to begin an exercise program?
  - a. Use weights for the strengthening exercises
  - b. Include flexibility and aerobic exercises
  - c. Avoid exercise until obesity has been controlled
  - d. Consult a physician to ensure the best exercise plan for the client

## ANSWERS TO POST-TEST

1. d.
2. b.
3. a.
4. a.
5. c.
6. a.
7. d.

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