

College Guild  
PO Box 6448 Brunswick, Maine 04011

# Health

## Unit 1 of 4

*"Education has allowed my mind to be challenged and set free. I've also grown as a person and learned about myself and the world."*  
~ Catarino H. ~

Welcome to College Guild's course on Health. This Course will cover topics on exercise, relaxation, and nutrition. You will read about bones, ligaments, muscles, and the circulatory, respiratory, and nervous systems. We'll discuss weightlifting, other forms of exercise, teaching your body to stop working so hard, nutrition theories, and the many factors that affect the ability to exercise and relax.

In this Unit, we'll focus on exercising, ligaments and joints, health in pro sports, and the other term for "exercise".

\*Because we're talking about the human body, there are several questions that have only one correct response. The answers to these will be included with the next Unit.\*

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### Exercising

Exercise is an activity that changes muscle action, joint movement, breathing, and heart rate. But all of our daily activities can do that; walking across the room and lifting a spoon to our mouths requires muscle action; leaning over to tie a shoe requires joint stretching; watching a scary movie makes the heart rate increase; humidity alone can change the pattern of our breathing. Certainly, a man whose job requires loading heavy cartons into a truck eight hours a day is getting plenty of exercise. In this course, "exercise" will usually mean programs and activities that are undertaken to achieve a specific physical goal.

#### 1. Which of the following sports have you been able to participate in?

- |                   |                               |
|-------------------|-------------------------------|
| archery           | baseball/softball             |
| basketball        | football                      |
| golf              | gymnastics                    |
| miniature golf    | weight lifting                |
| race care driving | shooting pool                 |
| swimming          | track (running/hurdles, etc.) |
| skating           | skiing/snowboarding           |
| soccer            | hockey                        |
| lacrosse          | cheerleading                  |

#### 2. Which of them has been the most enjoyable? Why?

#### 3. Name a sport that you can't stand doing. Why do you dislike it?

4. Name something besides physical action that happens while you're doing a sport. (Ex. One CG volunteer said she hated playing field hockey in high school because she was so bad at it and the uniforms were incredibly ugly.)
5. If you were starting a new exercise program tomorrow, what would be your main goals?
6. Of the activities listed in Question 1, pick the one that is ideal for your program, whether or not it's possible to do at your prison. Explain why you chose it.
7. Draw a picture of the equipment used for this activity!

### Ligaments & Joints

Look at Appendix 1 and you'll see the framework from which the body moves. All these bones are "taped" together by ligaments. Joints are the places where two bones connect and where movement occurs. Ligaments are non-stretchy, tough tissues (think of super-thick adhesive tape) that run from one bone to another at the joints.

In Appendix 2, there are some close-ups of joints (elbow, hip, wrist, and knee). The pictures of the elbow and hip are with ligaments included. Notice how completely they surround the joint. If the ligaments of all the joints of the hand were included, what would you see? -- Nothing but ligaments!

8. Why do the hands and feet need more joints than anywhere else?

9. Name one daily activity (not an exercise) you are doing when you move each of the following joints. Pick an activity using a different object for each one. (ex. "elbow" - throwing a handful of seeds to the chickens).

shoulder	hip
elbow	knee
wrist	ankle
fingers	toes

10. Pick any activity and describe what is happening to any three of the joints listed above when you perform that activity. (Ex. When feeding the chickens, the shoulder is flying forward as the chicken feed is hurled; the elbow is straightening; the fingers are opening.)

Ligaments may be tough, but they can be stretched out. To imagine super-stretched out ligaments, think of a gymnast. For most of us, "flexibility" means having a normal amount of movement in the joints. Tight joints interfere with daily activities. Someone with severe arthritis, for example, may have stiff, bent fingers that cannot fully open.

11. Keep your fingers, wrists, and elbows bent and try to brush your teeth. How did you manage to get them brushed?

12. Try brushing your teeth with elbows, wrist, and fingers straight - was that easier or harder?

13. Imagine walking up and down stairs with your knees bent, versus with your knees locked. How would you manage to do each one? Which would be easier? (If you have access to stairs, try this!)

14. Pick a sport for a person with arthritis who cannot completely straighten her knees. How could you find ways to help her and adapt the activity?

**15. Pick a sport for a man with left sided paralysis (resulting from a stroke) that incorporates both his right arm and legs.**

Stretching ligaments out too quickly is big trouble too. A joint sprain is a tear or sudden over-stretching of a ligament. The reason it hurts so much is because those darn ligaments are full of pain receptors! With the function of ligaments in mind...

**16. What is another problem besides pain when there is a sprain?**

**17. If athletes are on plenty of painkillers, can they walk on a sprained ankle without using crutches? Explain.**

Obviously, there is another type of injury that can affect the skeletal system and that is broken bones. Bones can snap and stay in position, or the two fragments can be displaced away from each other, or there can be a "hairline fracture" -- (imagine a plate with a small crack).

We want to discuss sprains and fractures because people too often minimize them. Complaining about pain is considered wimpy, and continuing to exercise or play with pain is often considered macho. What really galls health professionals is TV commentators going on and on about how courageous some athlete is because s/he ignores pain in her/his broken foot and continues to do triple flips off the balance beam! There should be a balance between being a brave competitor (or a macho prisoner) and common sense. Pain is a message your body sends to your brain to say -- "Stop, I need to rest!"

**18. Write a question about ligaments or joints that you have after reading this information.**

**19. Write a poem about the sport world's or society's attitude about courage in the face of injury.**

Since most people are equally bad about ignoring pain, here's a CG poem --

*The gymnast was looking incredibly glum  
Competing with fractures was totally dumb.  
She has lots of trophies to put on the shelf  
But she can't quite decide if she's proud of herself.*

### Pro Sports

In August 2001, Boston Red Sox coach Jimmy Williams was fired after the team lost six out of their seven previous games. Although Jimmy and general manager Don Duquette had never gotten along, right after the firing Duquette talked about all of Williams' wonderful contributions to the team. Whatever the participants say, professional sports seem to be focused on winning.

**20. How can this obsession with winning affect a player's mental and physical health?**

**21. Who do you think is under more stress - the coach or the players - and why?**

**22. Think of any ways to relieve the stress these coaches and players might have.**

Baseball has a long, nostalgic history in this country. In fact, it is considered America's official national sport. Babe Ruth (from the 1920s) held the home run record until it was broken by Hank Aaron, and just recently by Barry Bonds. Babe Ruth is remembered as one of the greatest players of all time. Another is Ted Williams (from the 1940s and 50s) who was the last major leaguer to hit .400. This means that for the year, every ten times he came to bat, he got a hit four times. He did it right too! Before the last game of the season, he could have sat on the bench and been guaranteed a .400 average. Instead, he

felt he wouldn't achieve that goal honorably unless he played out the season. So he risked this incredible record, but he did hit enough in the last game to keep it. Would today's players do the same, I wonder?

**23. Write a fictional story about sports, winning, and ethics in either pro sports, individual sports, or children's games.**

**The Other "Exercise"**

There is another definition of exercise that does not have to do with physical activity. Former President Abraham Lincoln (1809-1865) wrote:

*"This country with its institutions, belongs to the people who inhabit it. Whenever they shall grow weary of the existing government, they can exercise their Constitutional right of amending it."*

**24. How would you define exercise the way Lincoln used it?**

**25. Write a sentence in which the word "exercise" appears twice, one for the physical meaning and one for the non-physical meaning.**

**Just for Fun**

**26. Make up an original sport for athletes living over 2,000 years ago.**

**Health Club**

The Health Club is all about creating an exercise program that you can carry out and update us on your progress in following Units. As you learn more information through the Units, you can incorporate new activities into your routine. In Unit 1, we learned about ligaments and joints -- so now it's your turn to write an exercise routine that incorporates these.

Appendix 3 is a sample of one student's program. Keep in mind the following:

- If and how many times per week you carry out your program
- Whether or not you notice any changes in strength, endurance or any of the other goals you are working toward
- Decisions you make about changing the program and why
- Adjustments to your goals, whether for maintenance or improvement
- How you feel about about the program (Is your enthusiasm still high?)

**27. Write your definition of "health".**

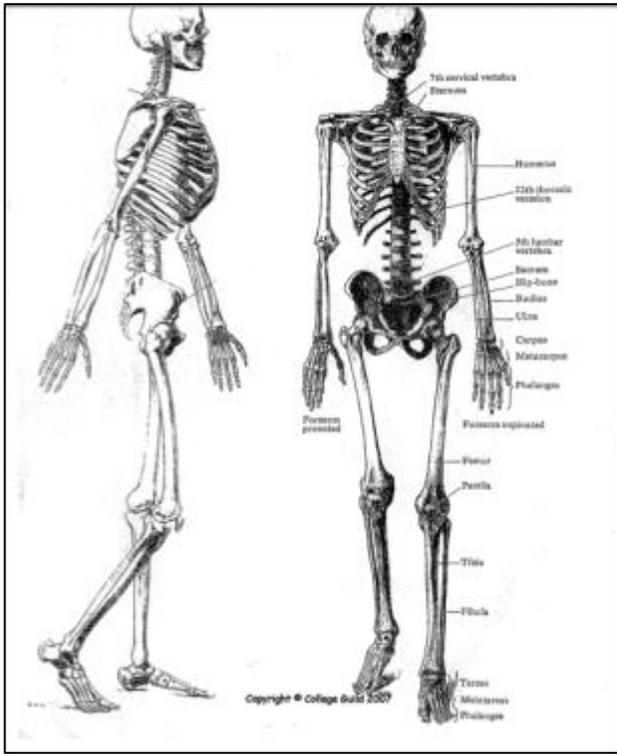
**28. Write your program - and be sure to keep a copy for yourself!**

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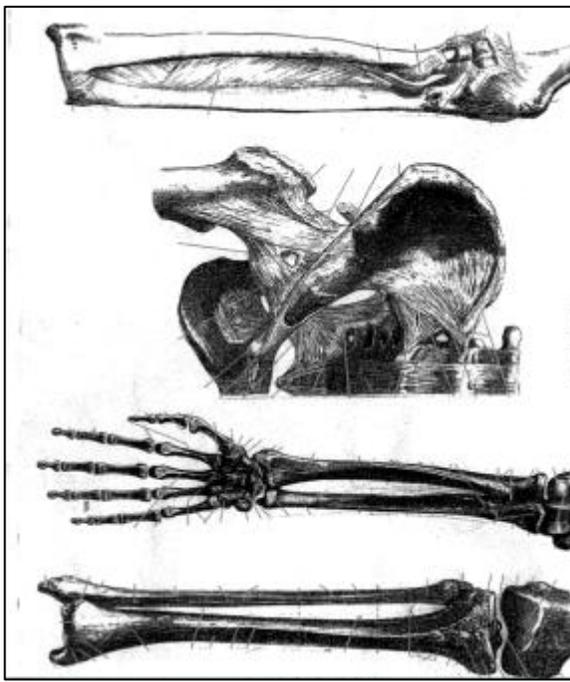
*Remember: First names only & please let us know if your address changes*

# Appendices Health: Unit 1 of 4

## Appendix 1



## Appendix 2



### Appendix 3: Health Club Sample

You can write your program in many different ways (including reps, number of times per week, alternating activities, etc.). You could write it in a table if you're a visual person, or simply write a paragraph detailing your plan.

WEEK 1	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Walking	5 min	5 min		5 min	5 min	10 min	10 min
Sit-Ups	5	5		10	10	15	15
Squats	5			5		5	
Push-ups		3			3		4

As you can see in the above routine, this person chose to do walking and crunches every day (except her rest day, Tuesday) and alternated between squats and push-ups on the other days.

Have fun!

#### Image Citations

Daniels, Lucille, and Catherine Worthingham. *Muscle Testing: Techniques of Manual Examination*. Philadelphia: Saunders, 1986. Print