Protein and Muscle

There are over 600 different muscles in the body that help us to do just about everything. All muscles are made up of the same elastic materials, called muscle fibers. There are thousands of fibers in each muscle, all working to help the muscle to function. There are three types of muscle in the human body: smooth muscle, cardiac muscle, and skeletal muscle. Smooth muscle is sometimes called involuntary muscle. This type of muscle is the type we cannot control. Smooth muscle helps us to perform the activities that happen without us thinking about them, such as breathing and digesting food. The next type of muscle, cardiac muscle, is found in the heart. These thick muscles of the heart contract to pump blood out and then relax to let blood back in after it’s circulated through the body. Just like smooth muscle, cardiac muscle works all by itself with no help from the conscious mind. Skeletal muscles are the third type of muscle. These muscles are the ones that help the body move when we want it to. By giving the bones AND our muscles exercise and the nutrients they need, we can have strong and healthy bodies.

In order to keep muscles strong and healthy, we need to eat the right foods and get enough physical activity. One important nutrient for having healthy muscles is protein. Foods like meat, beans, eggs, poultry, cheese, fish, and nuts give us the protein that we need to build our muscles. Protein is also needed for other cells in our body besides muscles. Another way to keep muscles healthy is by getting enough regular exercise. Exercises in which skeletal muscles are used, such as push-ups, bike-riding, running, and stair-climbing, all help to strengthen muscles and make them more powerful.

(Source: www.kidshealth.org)

Club Roll Call: What is your favorite cold-weather activity?

Physical Activity Calendars

Collect the November Physical Activity Calendar from each participant. Record each individual’s total number of activity minutes on the Get Up and Move! Club Chart.

Have a short discussion to review the Physical Activity Pyramid and reflect on their activity for the past month. Have each individual look closely at his or her calendar to see how his or her activity matches the advice from the Physical Activity Pyramid.

Reflection Questions:
Did you see an increase of physical activity over days in November?
What types of physical activity have you been doing indoors since it is colder outside?
How can you prepare for outdoor physical activity during the winter months?
Pass out the **December Physical Activity Calendar.**

**Educational Activity**
In this month’s physical activity, members will participate in four activities that will strengthen their muscles. Two of the exercises (crab walking and push-ups) will help to build arm and shoulder strength. The other two (bounding and flutter kicking) will help build lower body strength. By completing three minutes of each exercise, youth will also get a great aerobic workout.

**Recipes/Snacks**
This month’s recipe is for taco salad. Made with beef, beans, and cheese, one serving of this taco salad contains 16 grams of protein.

**Family Activity**
This month’s family activity is the **Family Push-Up Challenge**! Push-ups are an excellent way to gain upper body strength and are a great activity for the winter months when outdoor exercise isn’t always an option. Families will be challenged to do push-ups every day for two minutes and keep track of how many push-ups they can complete in those two minutes. They can also learn more about the muscles strengthened when doing push-ups by researching at the local library or on the internet.

**Community Activity**
For the December community activity, members can work up a sweat while performing a service for family, friends, and neighbors. Youth can offer to shovel driveways and sidewalks when the snowy weather begins. Make sure they record the minutes on their physical activity calendar. Members can even “charge” their clients for their services – one non-perishable food item for every fifteen minutes of shoveling – and then donate their food items to the local food pantry for the holiday season!

**Ties to 4-H Projects**
Foods that are high in protein can be important to building muscle. Members enrolled in projects such as **Meat Goats, Beef, and Meat and Other Protein Sources** will learn about different animals that provide us with protein-rich meat! Another protein source – soy foods – can be explored in the **Soybeans** project, in which members will learn about the soybean crop. In **Meats Judging**, the different cuts of meat are explored.

All **Get Up and Move!** materials can be found on the State 4-H website at [http://www.4-h.uiuc.edu/opps/move](http://www.4-h.uiuc.edu/opps/move).

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**Get Up & Move!**

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12/06