

## Video/Audio 1

**Directions:** Watch the video clip twice and complete the summary based on the information from the video clip.

Inside the thin mat, there are 200 layers of aluminum and polyester, materials which may hold the key to 1\_\_\_\_\_. When a person lies on the mat, the layers of material rub together and create 2\_\_\_\_\_. Researchers from the University of Connecticut believe that the electrical field builds 3\_\_\_\_\_ and stimulates 4\_\_\_\_\_ when patients sleep on the mat. The mat can act as a 5\_\_\_\_\_. When a person lies on the mat, energy is emitted, which may affect bones. In a study, half of the 70 women sleep on the electromagnetic mat and half on the 6\_\_\_\_\_. Bone activity is monitored through 7\_\_\_\_\_, samples of which are taken every six weeks. The implications are huge because this would be a simple, 8\_\_\_\_\_, inexpensive way to prevent and treat osteoporosis.

## **Script**

**Jennifer Matthews:** Inside a thin mat are 200 layers of aluminum and polyester, materials that may hold the key to treating and preventing osteoporosis.

**Dr. Karen Prestwood:** When a person lies on the mat, the layers of material rub together and create this very low level electrical field.

**Jennifer Matthews:** Researchers from the University of Connecticut believe that electrical field builds bone density and stimulates calcium growth when patients sleep on the mat.

**Dr. Karen Prestwood:** The mat can act as what we call a capacitor so that when a person lies on it, this energy is emitted and it is thought that it may affect bones.

**Jennifer Matthews:** Half of the 70 women in the study sleep on the electromagnetic mat and half on a placebo mat. Agnes Perrault is a volunteer. She doesn't have osteoporosis yet, and hopes to keep it that way.

**Agnes Perrault:** I really am into preventative medicine, or whatever. I would rather do something now than wait until I have some sort of condition.

**Jennifer Matthews:** Bone activity is monitored through changes in blood and urine, which are taken every six weeks.

**Dr. Karen Prestwood:** The implications are huge because this would be a simple, noninvasive, inexpensive way to prevent and treat osteoporosis.

**Jennifer Matthews:** This is Jennifer Matthews reporting.

## **Video/Audio 2**

**Raena Morgan:** Hi. I'm Raena Morgan and I'm visiting with Dr. Benjamin Weeks. He is a professor of Biology at Adelphi University in Garden City, New York. Dr. Weeks, we've been talking about vitamin C. Why is vitamin C good for the skin? I would not have thought that.

**Dr. Benjamin S. Weeks:** Vitamin C is a required vitamin in the synthesis of the protein collagen. And the protein collagen is required for the integrity and maintenance of the skin—as a structure and as far as wound healing goes, as well.

**Raena Morgan:** Wound healing?

**Dr. Benjamin S. Weeks:** Yes. So the production of collagen—this very important protein to the skin—requires vitamin C, adequate levels of vitamin C in the diet. And again, since we don't make vitamin C and we need to take that in, in our foods and our supplements; supplementing with vitamin C can be very important to maintaining collagen synthesis and the health of the skin and may also contribute to wound healing. Collagen is about one-third of the body protein.

**Raena Morgan:** It's a protein?

**Dr. Benjamin S. Weeks:** It's a protein and it represents about one-third of all of the protein we make in our body and so—and the skin is our largest organ.

**Raena Morgan:** It is?

**Dr. Benjamin S. Weeks:** Skin covers our whole body. So, if you are lacking in vitamin C, your skin, your collagen production, may not maintain the health of the skin and you may have problems in wound healing. Therefore, it's important to take in enough vitamin C to maintain that collagen synthesis.

**Raena Morgan:** You say that wound healing is an effect of taking adequate vitamin C. Have there been studies to show that this is effective?

**Dr. Benjamin S. Weeks:** Yes. There are many events involved in wound healing. Some of those events—especially the production and deposition of collagen—is an important step—first step—in wound healing. So why there are many things required for wound healing, certainly vitamin C is one of those essential components in the diet which would contribute towards successful wound healing through the collagen production.

**Raena Morgan:** Very good. Should you add some extra C if you have a wound?

**Dr. Benjamin S. Weeks:** Yep, sure.

**Raena Morgan:** All right. Thank you, Dr. Weeks.

### **Video/Audio 3**

Stress is a difficult term to nail down because what's stressful for you might not be stressful to the next person and vice versa. Likewise some stress is helpful because it may push you to do something in an emergency. When your body goes into stress response that's often called the fight or flight reaction hormone of release. The concern is that what is helpful for your body in a short time crisis can be harmful over a long period of time. The long term exposure to stress hormones can do a wrench into your body's processes. It can increase your risk of obesity, insomnia, digestive problems, heart disease, and other complications. For these reasons and others healthcare professional say it's important to manage your stress. Techniques that may prove helpful include exercise, meditation, relaxation techniques like deep breathing, healthy food choices, social support networks and professional psychotherapy.