

BUZZ, BODY & BITES

A newsletter for actively aging adults
Virginia Cooperative Extension
Family & Consumer Sciences
October 2021 Newsletter

Buzz

TYPES OF VACCINES

There are several different types of vaccines, including:

- live-attenuated (weakened) vaccines (e.g. measles/mumps/rubella and chickenpox vaccines)
- inactivated (killed) vaccines (e.g. Salk polio and diphtheria/tetanus/pertussis vaccines)
- recombinant (made through genetic engineering) vaccines (e.g. human papillomavirus and hepatitis B vaccines)
- subunit (contain part of the virus) vaccines (e.g. pneumococcal and influenza vaccines)

The recent exciting and highly effective mRNA-based vaccines against COVID-19 open new avenues for rapid development of safe and effective vaccines. As modern vaccine technology continues to advance, we expect availability of safe and effective vaccines against not only infectious diseases but other serious diseases as well.

Vaccines are already available against certain forms of cervical cancer (human papillomavirus vaccine) and liver cancer (hepatitis B vaccine). Vaccines against allergies, autoimmune diseases, and nicotine and opioid addictions could become available as well in the not-too-distant future.



History of Vaccines and How They Work

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One of the most impactful scientific achievements in history is the invention of vaccines and their tangible impacts on the longevity and health of mankind. Although modern vaccine history did not start until the late 18th century with the invention of the smallpox vaccine, the practice of vaccination dates back hundreds of years to 11th century China, where “variolation” (inoculation of healthy people into a scratch on the arm with materials from boils of smallpox patients) was practiced to prevent smallpox. Although such practice is incomprehensible today, variolation in the 11th century saved lives against a deadly disease with approximately 30% fatality rate.

In the 1790s, an English country doctor, Edward Jenner, made an astute observation that milkmaids who had been exposed to cowpox developed only mild symptoms, but were protected from the deadly human smallpox. Jenner confirmed his observation by experiments demonstrating that people inoculated with materials from cowpox lesions were protected against smallpox. Jenner’s discovery ushered a new era of modern vaccine history, and the term “vaccination” (vacca = cow in Latin) was coined. Over the past 200 years, a large number of life-saving vaccines have been developed against many deadly infectious diseases such as rabies, typhoid, plague, cholera, polio, and hepatitis B. Through global vaccination campaigns, smallpox has been eradicated worldwide, and polio has been eradicated from the Western Hemisphere. Measles is next in line for eradication via vaccination.

So, how does a vaccine work? A vaccine is a biological preparation that is made of killed or weakened microbes or their protein components. It prepares the vaccinated individuals to fight against the disease-causing microbes by tricking our body to imitate an infection and mount an immune response against them, since our body sees the vaccine as foreign just like real pathogens. Memory immune cells and neutralizing antibodies that are produced from vaccination will remain in the body. So, when a real pathogen infects a vaccinated individual in the future, the body quickly mounts a vigorous immune response to kill the invading pathogen before it causes disease.

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Bites

Pumpkin Bars



A nice alternative to the traditional pumpkin pie, these lower fat pumpkin bars are a nice way to ease into Fall. (Recipe from: <https://eatsmartmove.com/recipes/honey-of-a-pumpkin-bar>)

Ingredients:

- 2 cups whole-wheat flour
- 1/3 cup nonfat dry milk
- 1 tablespoon ground cinnamon
- 1 teaspoon baking soda
- 1/2 teaspoon ground allspice
- 1/2 teaspoon ground cloves
- 1/2 teaspoon ground nutmeg
- 1 cup canned pumpkin
- 2/3 cup honey
- 1/2 cup orange juice
- 1/3 cup canola oil
- 2 eggs
- Nonstick cooking spray

Instructions:

1. Heat oven to 350°F. Coat a baking sheet with nonstick cooking spray.
2. In a mixing bowl, combine flour, dry milk, cinnamon, baking soda, and remaining spices. Set aside.
3. In a separate mixing bowl, thoroughly mix pumpkin, honey, juice, oil, and eggs.
4. Gradually add flour mixture into the pumpkin mixture. Stir until smooth.
5. Spread batter into the baking sheet. Bake for 15-20 minutes or until golden brown. Cool and cut into squares.

Body

Stretching Exercises

The next four issues are a series of stretching exercises to promote flexibility and balance.



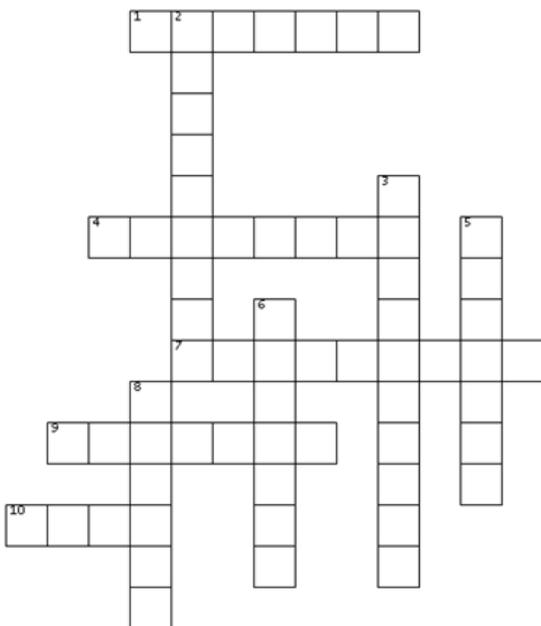
Pyramid Pose

(Stretches the hamstrings and shoulders)

1. Stand erect with one foot in front of the other 4-5 feet apart. (Or sit in a chair with one leg bent and foot flat on the floor, and the other extended with heel on the floor.)
2. Keeping your head back, slowly lean forward.
3. Hold your torso parallel to the floor for several breaths, then move forward as far as you can go, placing your hands on the floor, or on the back of a chair.
4. Hold the position for several seconds. Slowly return to the starting position.
5. Switch legs and repeat.

Mind Games

Crossword Puzzle



Across:

1. possessing or enjoying good health or a sound and vigorous mentality
4. a bacterium, virus, or other microorganism that can cause disease
7. to remove or destroy utterly
9. to defend or guard from attack; cover or shield from injury or danger
10. secure from liability to harm

Down:

2. successful in producing a desired or intended result
3. to affect or contaminate with disease-producing germs
5. the study of past events, particularly in human affairs
6. to stimulate antibody production
8. relating to the present or recent times as opposed to the remote past

RESOURCES

Virginia Department of Health
www.vdh.virginia.gov/immunization

Centers for Disease Control and Prevention

General Information & Immunization Schedule: www.cdc.gov/vaccines

Seasonal Flu Vaccine: www.cdc.gov/flu/prevent/flushot.htm

COVID-19 Vaccine: www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html

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