

# Getting flu, pneumococcal vaccinations is playing it safe

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should avoid the vaccine if you are allergic to chicken eggs, because the vaccine is derived from a material in eggs.

The pneumococcal vaccine is just as important as the influenza vaccine. About one in 20 adults who get pneumonia will die, according to the U.S. Department of Health and Human Services. A pneumonia shot is recommended for anyone over 2 years of age with a chronic health problem. It is 60 percent effective in preventing most serious pneumonia types and complications, which can include meningitis (an infection of the covering of the brain) and bacteremia (an infection of the blood).

The great thing about the pneumonia vaccine is that you don't even have to get it every year! If you are generally healthy and aged 65 or older when you get your first pneumococcal vaccine, the Centers for Disease Control and Prevention (CDC) considers one shot sufficient for the rest of your life. The CDC recommends revaccination only if you were younger than 65 when you received your first vaccination and that dose was more than five years ago.

These days, it is really easy to get an influenza or

pneumococcal vaccine. You can make an appointment with your primary health care provider, attend a clinic at most pharmacies, or make an appointment at the Kentucky Clinic on campus or Kentucky Clinic South. Please contact these places in advance to find out possible dates and times. Since the flu season can begin as early as October, influenza vaccines can be given in September. However, most clinics and appointments are scheduled in October or November.

## University resources in Lexington

**Kentucky Clinic Pharmacy**  
J-135 Kentucky Clinic  
Phone: (859) 323-5855  
HOURS:  
M-F: 8 a.m. - 6:30 p.m.  
Sat.: 9 a.m. - 1 p.m.  
Closed Sundays

**Kentucky Clinic South**  
2400 Greatstone Point  
Phone: (859) 257-9800  
HOURS:  
M-F 8 a.m. - 5 p.m.

PharmacistCARE  
K135 Kentucky Clinic  
Lexington, KY 40536-0284



# LIVING HEALTHIER WITH DIABETES



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# Get a flu shot? Definitely!

By Ashley Lewis and Tara Anderson  
Pharm.D. candidates

You've probably heard the saying, "An ounce of prevention is worth a pound of cure." This old adage is easy to apply to flu season, which is just around the corner. Influenza vaccines, as well as pneumococcal vaccines, are very important for people with chronic health problems such as diabetes. The influenza vaccine protects against the flu, and the pneumococcal vaccine helps prevent pneumonia and other infections that are caused by the same bacteria as pneumonia. People with diabetes are three times as likely to die of flu or pneumonia, but unfortunately, statistics show that only one-third of diabetics get a flu or pneumonia shot.

Generally, every person with diabetes should get an annual flu shot. As an extra precaution, it is advisable to have people who live with someone with a chronic health condition to get a flu shot, too. This is because you are less likely to get the flu if the people around you don't have it.

A common misconception is that you can catch the flu from getting a flu shot. This is a myth; the influenza vaccine cannot give you the flu. Though the vaccine does not provide 100 percent protection from the flu, it makes it much harder for you to catch the flu for about six months after you receive the vaccination.

October or November is the best time to get the influenza vaccine, and it takes about two weeks for it to take effect. You should not get the flu shot while you have a cold, respiratory illness or fever. Wait until you are better to get your shot. You also

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Pneumococcal disease kills more people in the U.S. each year than all other vaccine-preventable diseases combined, and people with diabetes are at greatest risk.

Centers for Disease Control and Prevention

# Good dietary habits are essential

The following article is an interview with registered dietician Jenny Kramer. Jenny received a bachelor's degree in 2002 from Indiana State University in Terre Haute then worked in both community and children's hospitals. She is now a graduate student in nutritional sciences at the University of Kentucky and is the outpatient dietician for the Kentucky Clinic. The interview was conducted by Doctor of Pharmacy students Nicole Anderson and Matt Martin.

I can give them meal and cooking ideas, calorie goals, and teach them how to read the food labels.

## How can you help diabetes patients?

I educate people with diabetes on counting carbohydrates, not just sugar. I show people where they can find out how many carbs are in foods and set goals for their carbohydrate intake. We discuss the benefits of exercise and promote weight loss, all in an effort to prevent the long-term complications of diabetes.

## Why do patients see a dietician?

Patients with diabetes, high cholesterol and hypertension see a dietician in order to use their diet to manage their disease.

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# What it takes to become a pharmacist

By Ashley Lewis and Tara Anderson  
Pharm.D. candidates

Since pharmacists are the primary providers in the **PharmacistCARE** DiabetesCARE program, this article is written to provide background on a pharmacy education.

Pre-pharmacy students have a schedule of courses that are required to apply to pharmacy school. The prerequisite courses needed for pharmacy school vary slightly from university to university, but the core knowledge base that one should have is the same. The University of Kentucky College of Pharmacy requires knowledge of general and organic chemistry, animal and microbiology, anatomy, physics, calculus and economics. In addition, potential students must also complete elective courses that can vary in subject matter. Public speaking, medical terminology and biochemistry are examples of possible electives.

It takes at a minimum of two years to complete the prerequisites, although many students enter pharmacy school with bachelor's or master's degrees that included these required studies within their curriculums.

The application for admission generally requires completion of the Pharmacy College Admissions Test (PCAT), a grade point average (GPA) submission, completion of prerequisite courses, and an interview. Once in pharmacy school, there are a series of courses in therapeutics and pharmacology that must be completed.

Pharmacy students learn not only the details of a given medication, but also how a variety of medications affect each other and their resultant effects on the body. The role of a pharmacist is much more than dispensing medication. Clinical pharmacists working in the hospital monitor drug therapy, adjust doses based on response and levels in the body, and prepare IV medications. Community pharmacists serve the needs of the community and work to ensure that medication therapies are appropriate for patients. Pharmacists may also work in research, creating new dosage forms and ways to deliver medications. Still other pharmacists, like those in **PharmacistCARE**, provide a valuable role in managing disease states.

Pharmacy schools and colleges prepare pharmacists with a basic education to enter into any one of the fields described above and more.

After students graduate with a Pharm.D. (Doctor of Pharmacy) degree, a licensure exam must be passed. Each pharmacy graduate must be licensed in order to practice in the United States. The process of licensure is regulated by each state's board of pharmacy. In most states, the licensure exam is made up of the NAPLEX (North American Pharmacist



Photo by Carol Guinnup

**The PharmacistCARE team consists of faculty of the UK College of Pharmacy with specialties in areas that include diabetes education and geriatric pharmacy. Shown above are (from left): Mikael Jones, Pharm.D.; Holly Divine, Pharm.D., CGP, CDE; Amy Nicholas, Pharm.D., CDE; Laura Jones, administrative assistant; and Carrie Johnson, Pharm.D.**

Licensure Examination) and a state-specific pharmacy law examination. Once passed, the student is officially a registered pharmacist (R.Ph.). A pharmacist who has completed a Doctor of Pharmacy degree may use Pharm.D. following their name, rather than the R.Ph. designation, and are addressed as "doctor."

Just as physicians or other health care providers may specialize in their careers (e.g., pediatrics, orthopedics, dermatology), pharmacists can, too, by completing residency programs that enhance their knowledge in certain areas or by taking credentialing examinations. Some of the **PharmacistCARE** pharmacists have completed residency programs in ambulatory care at various health care centers. Others have pursued credentialing in areas such as geriatrics and diabetes.

The entire training process to become a pharmacist can take from six to eight years. Residency training requires an additional one to two years.

## Generic version of Amaryl® approved

The Food and Drug Administration (FDA) has approved generic versions of Amaryl® (glimepiride) in strengths from 1mg to 8 mg for treatment of Type 2 diabetes. Check with your physician or pharmacist about receiving the generic version, which could result in cost savings on co-payments for UK Health Plan members.

# Good dietary habits (continued from page 1)

## What are some obstacles patients with diabetes commonly have when trying to manage their food intake/diet?

It has been my experience that patients with diabetes are not used to eating a large variety of vegetables or eating small, frequent meals. I strive for people to exercise portion control. I suggest for them to decrease their intake of peas, corn and potatoes. I promote them eating vegetables that are low in carbs, like zucchini, squash, tomatoes and onions, and to use them in different ways, such as salads and stir-fry.

## What are the best snacks for people with diabetes?

Snacks that have around 15g of carbs plus some lean protein to be filling. A few ideas might be whole-wheat crackers with peanut butter, a piece of fruit with some nuts, string cheese (made with skim milk) with pretzels, or yogurt with trail mix.

## What makes up a good meal? Can you give examples for breakfast, lunch and dinner?

A good meal consists of 3-4 ounces of lean protein, a high-fiber vegetable and a little bit of healthy fat, such as 1 to 2 teaspoons of olive oil.

**Breakfast:** yogurt with a high fiber cereal mixed in, fruit and peanut butter on whole wheat toast, or a low-sugar Slim Fast®. It's very important to eat breakfast so that you don't wait until lunch and eat too much.

**Lunch:** salad with a lean protein like chicken or turkey, broth-based soup with lean meat, sandwiches on whole-wheat bread. I also have a "fast food" guidebook for those on the go.

**Dinner:** fish, chicken or lean beef with lots of vegetables and some brown rice. This makes a good stir-fry. I would suggest most men have 60g of carbs and most women have 45g of carbs for dinner.

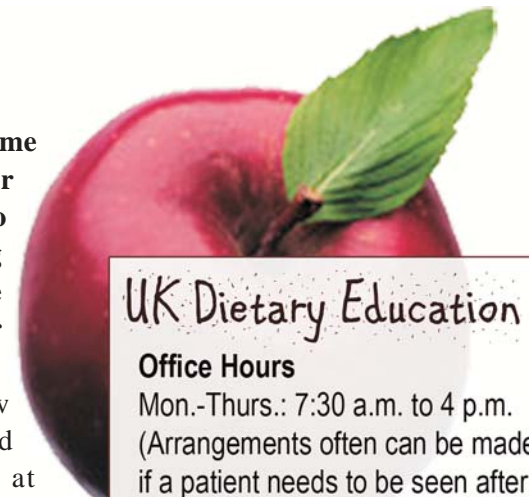
**Dessert:** Make dessert part of the meal. I don't recommend doing it as a snack. Portion control seems easiest if people buy things that are packaged for individual servings. Many of my patients like the individual styrofoam cups of ice cream. Other suggestions would be fat-free/sugar-free pudding, fruit dipped in fat-free whipped topping, or sugar-free gelatin.

## What is a reasonable portion?

Portion sizes are located on the food label of all products. People can use measuring cups and spoons to determine how much they are getting of many foods. A few other rules I use are: A piece of meat the size of the palm of your hand or a deck of cards is 3 ounces, a matchbook is 1 ounce, a Kraft® single is 1 ounce of cheese, and a tennis ball- sized piece of fruit is one serving.

## What are some resources for patients who are looking to make healthier decisions?

The new food pyramid web site at [www.mypyramid.gov](http://www.mypyramid.gov) is a good start. Patients also can look up information at [www.medlineplus.gov](http://www.medlineplus.gov). The American Diabetes Association web site located at [www.diabetes.org](http://www.diabetes.org) is also a great site.



## UK Dietary Education

### Office Hours

Mon.-Thurs.: 7:30 a.m. to 4 p.m.  
(Arrangements often can be made if a patient needs to be seen after 5 p.m.)

### Location

Room 354 in Wing C of the Kentucky Clinic

**(859) 323-5542**

## What tips do you have for eating healthy holiday eating?

It's unrealistic to think people are not going to eat some of the unhealthy foods around for the holidays, but I advise patients to try and eat less of them. If you plan on going to a party or dinner during the holidays and you are bringing a dish, make it one with lots of vegetables. Try to include physical activity as a part of your social activity during the holidays. When you go to make holiday recipes, look for ways to modify them to decrease the fat and carbohydrates.

## What types of foods should patients eat/drink when they have low blood glucose?

It depends on how low their blood glucose is. If it's very low and they need to raise it quickly, then I suggest 4 ounces of orange juice. Otherwise, I suggest patients have a snack with 15-30g of carbs along with some protein and fat. A few examples would be cheese or peanut butter on crackers, or yogurt.

## Do patients need a referral? How often should someone with diabetes see a dietician?

Patients do not need a referral. If they call and let me know what insurance they have, I can tell them if their insurance will help cover the cost. We usually have an initial appointment and then a follow-up visit in two weeks to one month. The patient will come in for a third visit two to three months later. Most patients will not be seen after their third visit until the following year.