Cough, sniffle… the flu vaccine

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nasal spray and the injection (shot) have been shown to prevent the flu effectively.

Another myth is , "Since I was vaccinated last year, I don't have to be vaccinated again." This statement is also false. The influenza viruses change *(mutate)* their outer coating frequently. They can thereby evade our human defenses, requiring that we be vaccinated each year to have protection against the current strain.

Who gets vaccine?

The flu vaccine is recommended for people over 6 months of age, both healthy and with chronic medical conditions. It is strongly recommended for those who have a chronic medical condition; those over 65 years of age, (especially if they live in a nursing home or other area that houses people with chronic medical conditions); those with heart conditions or conditions that can compromise respiratory function, such as a brain injury, asthma, or a seizure disorder; children (especially those aged 6 to 23 months of age); women who are pregnant; those with a weakened immune system (including those with HIV/AIDS); and caregivers and healthcare providers, or those who are at risk for transmitting the virus to others.

People should NOT take it if they are severely allergic to chicken eggs; they have had a severe reaction to the flu vaccine in the past, including Guillain-Barré Syndrome; they are under 6 months of age; or they have an illness with a fever (wait until the symptoms subside).

Like any medication, the flu vaccine can cause side effects. The most common are mild symptoms that may develop soon after the vaccine is given and generally last for 1-2 days. This may include redness or swelling near site of injection, low-grade fever and/or muscle aches. Severe, life-threatening allergic reactions reactions are extremely rare.

Overall, the potential benefits far outweigh the risks. November ushers in flu season, and now is time to get your flu vaccine by visiting your doctor or the local health department.

Remember, knowledge is power, but it is what you do with it that makes all the difference!

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Doctors hunting for a way to protect tiniest babies

By Lauran Neergaard
THE ASSOCIATED PRESS

WASHINGTON – It's one of the grimmest threats to premature babies: Their immature intestines break down. They can't be fed. In the worst cases, holes in the bowel let bacteria leak into the blood – and kill.

This mysterious disorder is expected to soon overtake lung disease as the leading killer of preterm infants, and researchers are struggling to figure out why it strikes and develop the first real protection.

"We're keeping the most fragile and vulnerable babies alive longer" with better respiratory care, but "at a price," laments Dr. David Hackam of Children's Hospital of Pittsburgh.

"What hasn't gotten out is that many of these babies then are at risk of developing NEC" – the shorthand term for necrotizing enterocolitis, a severe intestinal inflammation that can blindside doctors and parents alike.

Diana Seabol's experience is typical: Her twins were born almost 21/2 months early. Three weeks later, she was ecstatic that son Cameron's lungs were strong enough to come off a ventilator _ only to watch him be rushed to Hackam's hospital for emergency surgery that same day because his intestines had perforated.

"Nobody really talked to me about what happens with preemies," said Seabol, whose son, now 2, survived that first bout with NEC and some life-threatening complications a few months later. ``It would have been nice to look for some signs."

NEC occasionally hits a full-term infant, but mostly afflicts the tiniest preemies, born smaller than 31/2 pounds. Estimates vary, but Hackam said NEC may affect as many as one in five preterm infants.

The National Center for Health Statistics reports there were about 500,000 pre-term babies born in 2004, the most recent data available.

It starts with subtle symptoms, such as poor food tolerance. In babies diagnosed early, feeding is stopped to let the intestines rest and hopefully heal themselves. They're also given intravenous antibiotics. About half recover.

But the rest worsen, their abdomens swelling as inflammation increases. Bacteria inside the intestines leak out, causing bloodstream infections. Surgery is required to remove portions of dead intestine, but "by the time you get to that stage, it is too late," says Dr. Gail Besner of Columbus Children's Hospital. "The damage has already been done."

About half of babies with severe NEC die, and survivors can face lifelong complications depending on how much of their bowel was lost.

The goal: To develop drugs that can protect these fragile babies' intestines from becoming inflamed in the first place, just as doctors now routinely give preemies lung-protecting therapies.

Besner discovered a growth factor, named HB-EGF, that promises to do that.

The body normally produces this protein, which helps stimulate intestinal cells to grow and counters inflammation. It's found in the amniotic fluid that nurtures a fetus, and in breast milk. (In fact, premature infants given breast milk through their feeding tubes seem to have a lower risk of NEC than those who receive formula.)

Giving extra doses of the growth factor to newborn rats whose intestines were deliberately stressed greatly reduced their chances of getting NEC, and helped those who still got it to survive, Besner found. Now she is seeking permission from the Food and Drug Administration to begin the first human studies, by administering doses straight into high-risk preemies' feeding tubes.

In Pittsburgh, Hackam found a different molecule that seems important for intestinal healing.

The "intestinal barrier," or lining, Hackam describes as "a real living fort," requiring constant maintenance to seal off injuries before bacteria can penetrate them. Cells called enterocytes are the repair workers, swarming over to patch any breach.

But the intestinal barrier in newborns, especially premature infants, isn't fully developed and thus has an impaired ability to do those repairs, Hackam discovered.

Moreover, in babies with NEC, a switch that acts like a brake is turned on inside their intestinal cells, abruptly halting the enterocytes' movement. He's now hunting drugs to turn that switch back off, so the babies' innate ability to heal can finish developing, and he hopes to begin clinical trials within a few years.

For now, hospitals are supposed to watch closely for the earliest signs of NEC; it's one reason that feeding is begun slowly for small preemies.

But parents have a big role, too, Pittsburgh's Seabol points out. They may be first to notice warning signs, even after survivors go home. At 4 months, Cameron suddenly quit finishing his bottles, and his mother had to insist to initially skeptical doctors that something was very wrong. Indeed, a temporary patch from his initial surgery had quit working, leaving the baby unable to absorb food. After a month in the hospital, Hackam successfully reattached the remaining ends of Cameron's intestines.

Now 2, Cameron is thriving. "but I'm aware it could come back at any time," Seabol says.

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Urban planners create new communities

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houses, detaching the garages and shrinking the lawns down to the size of postage stamps.

For this reason, the movement sometimes goes by the moniker "neotraditionalism." That means the features New Urbanists lovingly include in their designs are also available in many older towns and cities across the country.

Take, for instance, a city neighborhood such as Uptown, in Minneapolis, or small towns like Portland, Maine, Flagstaff, Ariz., or Madison, Wis. All have sidewalks, public transport and discernible centers - central characteristics of New Urbanism.

"If it's walkable and compact and diverse and so forth," said Duany. ``Insofar as it is that, then it's New Urbanist."

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