

## **Preventive Care and Medication Monitoring**

### **Medication Monitoring**

If you take an immunosuppressive medicine such as azathioprine, mercaptopurine, tofacitinib, or methotrexate, you will be enrolled in our monitoring program for people who take these medicines.

Lab tests (blood tests) will be done for as long as you take the medicine. This will usually include a complete blood count with differential and peripheral smear (CBC/D/P) and a comprehensive metabolic panel (CMP). These blood tests give us early clues about any side effects, such as a low white blood cell count (WBC) or increases in the liver function tests (LFTs). You will get baseline lab tests before starting to take the medicine. We will work together to make a plan for your blood work.

It is common to have lab tests done frequently for the first 2 months as we figure out the best dose for you. Once you are taking a steady dose of the medicine and your blood tests are normal, you will have lab tests on a set schedule every 3 months.

### **Preventive Care**

#### **Preventing Infections with Vaccines**

Vaccines are used to reduce our risk for infections. Some vaccines are made with a live virus and others are made with an inactivated form of the virus. Vaccines that are made with a live virus may cause some symptoms of the virus. However, they lower your risk for getting a more serious form of the infection.

People with IBD often need to take immunosuppressive medicines, which put them at increased risk for certain infections. People taking thiopurine medicines (like azathioprine and mercaptopurine) are at a high risk for infections with viruses that stay in the body for a long time and become active again. For example, the virus that causes chickenpox can return much later in life as shingles. The virus that causes mononucleosis (Epstein Barr virus or EBV) can also become active again. The human papilloma virus (HPV), which contributes to cervical cancer, is more likely to cause an infection in women taking thiopurine medicines.

People taking anti-TNF medicines, including infliximab, adalimumab, certolizumab pegol, and golimumab have a higher risk for diseases such as tuberculosis and fungal infections. There is also an increased risk for bacterial infections of the skin and soft tissues. Pneumonia is the most common, serious, and sometimes fatal infection that can occur while a person is taking an anti-TNF medicine.

#### **Vaccines**

The pneumonia vaccines (Pneumovax and Prevnar) can protect people against 23 of the most aggressive types of pneumonia with just one shot. It is not a live vaccine and will not give you pneumonia. These vaccines are advised for all adults age 65 and older and also for anyone who is taking immunosuppressive medicines (including prednisone).

- If you have never had a pneumonia shot, you will get the Prevnar and then the Pneumovax at least 8 weeks later. You will get a Pneumovax booster in 5 years
- If you have had the Pneumovax, you will get the Prevnar at least one year after the Pneumovax. You will get a booster Pneumovax 5 years after your first.

The flu vaccine can prevent the flu or shorten the time the flu lasts and ease its symptoms. A flu shot is advised each fall for older people with IBD as well as those on immune suppressants, steroids, and/or biologics.

Anyone who takes immunosuppressive medicines or biologics should get the shot and avoid the nasal spray. The shot is made of inactivated virus and the nasal spray is made of the live virus.

The hepatitis B vaccine is given to prevent severe infections of the liver. These infections can be more serious, and even fatal, among people who are taking anti-TNF medicines. This vaccine is now a part of the routine childhood shots. It is a good idea for everyone with IBD to get it because an anti-TNF medicine may be needed in the future. You need three (3) shots over 6 months for the vaccine to work. This vaccine is inactivated and safe to get while taking immunosuppressive medicines. You will need to have this done through your primary care physician.

The human papilloma virus (HPV) vaccine (Gardasil and Cervarix) is recommended for young women and men between ages 11 and 26 to reduce their risk for cervical cancer and genital warts respectively. It is a good idea for young women and men with IBD to have this vaccine because taking an immunosuppressive medicine can increase your risk of HPV infection. A total of three (3) shots are required over 6 months for the vaccine to work. This vaccine is inactivated and safe to get while taking immunosuppressive medicines. You will need to have this done through your primary care physician or gynecologist (if you are a woman).

Chickenpox and shingles are caused by the same virus – varicella zoster. This virus lives on in the body after chickenpox and can occur again as shingles. Having the vaccine for both chickenpox and shingles is advised for adults. But because these vaccines are made of the live virus, they may not be safe for someone who is taking biologics (anti-TNF, natalizumab, or vedolizumab) or corticosteroids.

It is best to have one of these vaccines at least 1-2 months after stopping biologic medicine, and to not start taking biologic medicine for about 1-2 months after having one of these shots. Patients on azathioprine, 6-MP, or methotrexate may be able to take a shingles vaccine but you should talk to your doctor first.

Injectable polio vaccine is not a live virus and will not cause polio. This vaccine is advised for children. The oral form is a live vaccine and is not considered safe for people who take immunosuppressive medicines or biologics.

Please tell your doctor if you are not up to date on childhood or other vaccines.

### **Problems with live vaccines (planning ahead)**

Many vaccines work better if they are alive but weak. They cause a better immune response. However, if you are taking an immunosuppressive medicine or biologic these vaccines can cause infections. It is **very important** to avoid active virus vaccines while taking corticosteroids or biologics. The vaccines listed below only come in live forms and should be given at least 1-2 months before starting to take corticosteroids or biologics. Live vaccines should not be given while you are taking immunosuppressive medicines or biologic, or within 2 months after these medicines are stopped.

### **Common live vaccines**

Nasal spray (Intranasal) flu – remember the shot form is inactivated vaccine but the nasal spray is a live vaccine

Varicella (chickenpox and shingles)

MMR (measles, mumps and rubella) –this vaccine is used in children only and as a booster for health care workers who have negative blood tests for immunity to the disease.

Rotavirus – this vaccine is used in children only. Babies born to mothers on biologic therapy during pregnancy should not get the rotavirus vaccine as they should not get a live vaccine before 1 year of age. All other recommended vaccines before 1 year of age are inactivated and fine to give to baby.

Oral polio – this vaccine is used in children only. The injectable polio vaccine, which is not live, is also good for children

### **Uncommon live vaccines**

Smallpox

Yellow fever

Oral typhoid – can use injectable typhoid

Talk to your doctor if you are on immunosuppressive medications before getting any of these uncommon live vaccines.

### **Preventing Skin Cancer**

People who have IBD and take immunosuppressive medicines such as azathioprine have an increased risk for basal cell and squamous cell skin cancers and perhaps melanoma. Patients on biologic medicines may have an increased risk of melanoma.

Using sunblock, especially in the summer and at any time you will be out in the sun will help lower your risk. If you take immunosuppressive medicines or biologics for a long period of time, you may be advised to see a dermatologist for a complete skin exam every year.

### **Preventing Bone Loss (osteopenia and osteoporosis)**

### **What is osteoporosis and what causes it?**

Osteoporosis is the loss of bone minerals such as calcium. It can lead to broken bones, often of the hips and spine. Other risk factors include a family history of osteoporosis, high alcohol intake, low calcium and vitamin D intake, limited physical activity, smoking, and age. The highest risk for osteoporosis is among women after menopause (natural or after surgery).

### **What is osteopenia?**

Osteopenia is the milder stage of bone loss that occurs before osteoporosis. If you have osteopenia, you have a much higher risk for osteoporosis than if your bone density is normal. Children who have osteopenia are at high risk for osteoporosis in adulthood.

### **Why is vitamin D so important?**

Your body needs calcium to make strong bones, and vitamin D plays a key role in helping your body use calcium. That is why many calcium pills also contain vitamin D. Vitamin D is made in the skin from the sun's ultraviolet rays. To make enough vitamin D, the skin needs to be exposed to sunlight for 15 minutes a day for a few days each week.

While it is a good idea to use sunblock to prevent skin cancer, sunblock also prevents the skin from making vitamin D. People who live in the northern states are at increased risk for not getting enough vitamin D because of the long winters.

### **Why does IBD increase the risk for osteoporosis?**

People with IBD who have decreased bone density are at increased risk for osteoporosis. They are also more likely to get osteoporosis at a younger age. The Crohn's & Colitis Foundation of America estimates that between 30 and 60 percent of patients with IBD have decreased bone density. Low bone density in IBD is caused by the general risk factors mentioned above, along with risk factors related to the IBD.

### **Why is it important to prevent bone loss?**

Hip and spine fractures can greatly decrease the ability to walk and move around and to care for oneself. In the United States, 50 percent of women and 25 percent of men will have a fracture due to osteoporosis.

### **How is osteoporosis measured?**

A bone density scan, also called a DEXA (dual energy x-ray absorptiometry) scan, is an x-ray that measures bone loss. It is the standard test for bone density. Your doctor will order a DEXA scan when you are first diagnosed and periodically to monitor any changes. The goal of the test is to see if you are at risk for osteoporosis so that you can get the help you need to treat or prevent osteoporosis.

### **Will I need any other tests to detect bone loss?**

You may have a blood test to check your vitamin D level. If your level is low, you may need to take vitamin D pills. The usual daily dose is 400 to 1,000 international units (IU), although older people need at least 1,000 IU per day. People with Crohn's disease may need higher doses for weeks to months. Your doctor may prescribe even higher doses for you.

### **Treatments for low bone density**

There are things you can do to treat low bone density and lower your risk for fractures. Some of the things you can do are to get regular weight-bearing exercise, such as walking or dancing, stop smoking, and make sure your diet gives you enough calcium and vitamin D.

You may also take calcium and vitamin D supplements, or other medicines such as bisphosphonates, biologics, calcitonin, hormone replacement, or parathyroid hormone therapy. Steroid medicines will only be used as needed and in the lowest dose possible to manage your IBD and keep your bones healthy.

- Calcium-rich foods include low-fat milk, yogurt, cheese, ice cream, sardines, salmon, shrimp, broccoli, collard and turnip greens, and sesame or sunflower seeds
- Calcium pills – 1,000 to 1,500 mg/day.
- Vitamin D pills – 800 to 50,000 international units, as indicated.
- Daily weight-bearing exercise – such as walking.
- Medicines-may be needed if you have osteoporosis or if you have had a broken bone in the past along with low bone density.

Your doctor may have you see a bone specialist to decide on the correct treatment.

### **Preventing Colon Cancer**

Some people with IBD have a slightly higher risk for colon cancer than those without IBD. Not everyone with IBD has the same risk. Having a colonoscopy as often as advised can help to detect early signs of cancer or pre-cancer, when it can be treated most easily. Everyone with IBD in the colon requires a colonoscopy starting 8 years after the first symptoms of IBD, and then every 1 to 3 years.

#### **Understanding your risk for colon cancer:**

1. People with ulcerative colitis have an increased risk for colon cancer 8 to 10 years after diagnosis.
2. People with a limited form of ulcerative colitis that involves just the rectum do not have an increased risk for colon cancer.
3. Taking your IBD medicines regularly can help reduce your symptoms and can also decrease your risk for colon cancer.

4. Some medicines, supplements, and vitamins can protect a person from getting cancer. No medicine, supplement, or vitamin has been definitely shown to prevent cancer, but several show promise. These include IBD medicines related to mesalamine (Asacol HD, Pentasa, Lialda, Colazal, Azulfidine). Ask your doctor about new advances in this area.

5. Ask your doctor if you have an increased risk of colon cancer because you have IBD.

## **Smoking and IBD**

There is no doubt that smoking will make your Crohn's disease much worse. It makes your symptoms worse and can make it harder for medicines to work. Smokers are also more likely to develop recurrent Crohn's disease after surgery. If you smoke and you have Crohn's disease, stopping is one of the best things you can do for yourself. It is hard to quit, but there is help. Talk to your doctor or attend a smoking cessation program.

If you have ulcerative colitis you may have a flare when you quit smoking. Using a nicotine patch may help to prevent or relieve the flare. Please speak with your doctor about this.

