



DRUGSTORE AISLE

- ▶ Tiotropium (Spiriva HandiHaler), a **new long-acting bronchodilator**, has been approved for the treatment of chronic obstructive pulmonary disease (COPD). In trials, tiotropium was at least as effective as the popular short-acting bronchodilator ipratropium (Atrovent). Tiotropium is meant to be taken once daily, while ipratropium is generally taken 3 or 4 times daily.
- ▶ Patient-controlled analgesia (PCA) allows patients to **control the level of opioid pain medication** they receive after surgery. A recent study in the *Journal of the American Medical Association* has found that another method of pain control—**opioids delivered via a skin patch**—is equally effective. Using a patch eliminates needles, intravenous tubing, and a pump. In the trial, 636 patients were randomly assigned to traditional PCA or the patch. Ratings of good pain control were reported by 73.7% of patients on the patch and 76.9% of patients using traditional PCA.
- ▶ A study in the *Journal of the American Medical Association* documents the **overprescription** of expensive antihypertensive medication. Researchers examined more than 2 million prescriptions for antihypertensives filled in Pennsylvania in 2001. They found that about 40% of the time **doctors prescribed different, more expensive medications** than the thiazide diuretics that are generally recommended.
- ▶ Seeing red? If you take a **bisphosphonate** such as alendronate (Fosamax) to prevent **osteoporosis**, there is a small chance that this drug could be the cause. A report in *Pharmacotherapy* documents a patient who “saw red” for a few hours after taking an increased dose of the drug. After discontinuing alendronate, the problem abated. Although rare, visual and olfactory disturbances and hallucinations have been reported in association with bisphosphonates, especially at high doses.

Drugs That Can Add Pounds

Most people put on weight as they get older, often because their eating habits change and they become less active. But there can be another, hidden reason for weight gain: taking certain prescription medications.

“Medication-related weight gain has become far more important over the past decade as obesity increases in prevalence and more people are taking medications for chronic illnesses,” says Lawrence Cheskin, M.D., Director of the Johns Hopkins Weight Management Center. Weight gain can range from a few pounds to more than a hundred pounds, which can occur with corticosteroids. This excess weight is dangerous because it can cause or worsen problems like hypertension, other cardiovascular conditions, diabetes, high blood cholesterol, and osteoarthritis—the very conditions for which people often need medications. “Also, some people see they’re gaining weight and stop taking their medication,” says Dr. Cheskin. In one study of people with anxiety disorders who were taking tricyclics, weight gain was the most common reason people discontinued treatment.

The reasons why some medications cause people to gain weight are not always clear, but in many cases a drug increases appetite or makes people crave certain foods. For example, the weight gain associated with the use of insulin is probably due to the fact that insulin can lead to periods of hypoglycemia, which stimulates appetite. Some drugs alter metabolism, causing the body to burn calories more slowly or to store fat. Some corticosteroids, for example, make the body less able to absorb blood glucose, and this can lead to fat deposits in the trunk.

Other medications produce fatigue or shortness of breath, making the person less active (the antihypertensive drugs known as beta-blockers are thought to have this effect), or can cause

water retention (a side effect of antihypertensive calcium channel blockers).

Weight gain is so common that it’s not always possible to pinpoint a medication as the cause, especially because medication-related weight gain may take weeks, months, or even years to occur. “In some cases, a person will become ravenous an hour or two after taking a medication,” says Dr. Cheskin, “but usually the link is not that clear.” Dr. Cheskin also points out that just because a medication is associated with weight gain doesn’t mean that everyone taking it will gain weight.

If you suspect that you’re putting on weight because of a medication you’re taking, talk to your doctor. You may be advised to stop taking the medication, switch to one associated with less or no weight gain or even weight loss, or take a lower dose. You also may need to change your eating habits and boost physical activity. But don’t discontinue a medication without first talking to your doctor. Keeping your blood pressure, diabetes, or depression under control is more important than the few excess pounds that may be associated with a particular drug.

People concerned about their weight should ask their doctor about the possibility of weight gain when they receive a new prescription. As Dr. Cheskin points out, “Prevention is better than dealing with weight gain later.”

The chart at right, from Charles H. Twilley, Pharm.D., Senior Pharmacist at Johns Hopkins Bayview Medical Center, lists common types of medications that can cause weight gain, along with potential substitutes. Bear in mind that switching to a different drug or regimen is not always the best option. For example, intensive insulin therapy is better than once-daily insulin therapy at preventing eye and kidney disease. Your doctor can help you decide on the best approach for you.



Drugs Associated With Weight Gain	Possible Solutions (Ask Your Doctor)
<p>ANTIHYPERTENSIVES Alpha-adrenergic blockers and centrally acting agents Clonidine (Catapres), methyldopa (Aldomet), prazosin (Minipress), and terazosin (Hytrin)</p>	Switch to doxazosin (Cardura) or guanfacine (Tenex).
<p>Beta-blockers Propranolol (Inderal), a nonselective beta-blocker, stimulates appetite.</p>	Switch to a selective beta-blocker such as atenolol (Tenormin) or metoprolol (Lopressor). These may also stimulate appetite but probably less than propranolol.
<p>Calcium channel blockers Nisoldipine (Sular)</p>	Switch to amlodipine (Norvasc), diltiazem (Cardizem, Dilacor, Tiazac), or nifedipine (Adalat, Procardia). These may occasionally cause water retention but are unlikely to cause true weight gain.
<p>Direct vasodilators Hydralazine (Apresoline) and minoxidil (Loniten) cause people to gain water weight.</p>	Always take hydralazine and minoxidil in combination with a diuretic.
<p>DIABETES DRUGS Insulin Intensive insulin therapy causes more weight gain than less-frequent insulin therapy.</p>	Switch to once-daily insulin therapy.
<p>Sulfonylureas Glipizide (Glucotrol), glyburide (DiaBeta, Glynase, Micronase), and glimepiride (Amaryl)</p>	Add metformin (Glucophage), acarbose (Precose), or miglitol (Glyset). All three of these drugs appear to produce weight loss.
<p>Thiazolidinediones Pioglitazone (Actos) and rosiglitazone (Avandia)</p>	Same as above.
<p>ANTIDEPRESSANTS Atypical antipsychotics Clozapine (Clozaril), risperidone (Risperdal), and olanzapine (Zyprexa)</p>	Switch to aripiprazole (Abilify) or ziprasidone (Geodon); these have a lower incidence of weight gain.
<p>Mood stabilizers Lithium, carbamazepine (Carbatrol, Eptol, Tegretol), and valproate (Depakene, Depakote)</p>	No alternatives are available.
<p>Selective serotonin reuptake inhibitors (SSRIs) May cause a small decrease in appetite and modest weight loss, followed by weight gain. Some evidence suggests that paroxetine (Paxil) may be the most likely of the SSRIs to cause weight gain.</p>	Switch to citalopram (Celexa), escitalopram (Lexapro), fluoxetine (Prozac), fluvoxamine (Luvox), or sertraline (Zoloft). These drugs may be less likely to cause weight gain than paroxetine.
<p>Tetracyclics Mirtazapine (Remeron)</p>	Switch to a drug from a different class, such as an SSRI.
<p>Tricyclics Amitriptyline (Elavil, Vanatrip) and imipramine (Tofranil) most often stimulate appetite; trimipramine (Surmontil) and doxepin (Sinequan) also may lead to weight gain.</p>	Switch to nortriptyline (Aventyl, Pamelor) or desipramine (Norpramin), which may be less likely to cause weight gain, or protriptyline (Vivactil), which may even lead to weight loss.
<p>OTHER DRUGS Corticosteroids Prednisone (Deltasone), methylprednisolone (Medrol), and other corticosteroids often lead to fat deposits in the trunk and fluid retention.</p>	Take the lowest dose that controls your condition. The corticosteroid dexamethasone (Decadron) may be slightly less likely to cause weight gain.
<p>Epilepsy drugs Many drugs used for epilepsy are associated with weight gain, especially valproate (Depakene, Depakote) and carbamazepine (Carbatrol, Eptol, Tegretol).</p>	Switch to phenytoin (Dilantin) or phenobarbital, which do not promote weight gain, or topiramate (Topamax), which may even cause weight loss.