Intermountain℠ Healthcare

BP BASICS

What you need to know to manage your blood pressure

It doesn't have to happen to you.

I lost my father at an early age. He had high blood pressure. But since he didn't have symptoms, he didn't take his medications regularly. He also wasn't too good at making the lifestyle changes his doctor recommended. My father ended up having a stroke—when he was only 53—one week after his grandson was born. His doctor said his stroke could probably have been prevented had he controlled his blood pressure.

Because high blood pressure runs in my family, I've learned that I may be at increased risk too. And although I can't change that, I can reduce my risk in other ways. For starters, I'm following a healthy diet, being more active every day, and managing my stress. So far it's working: my blood pressure was 114/72 the last time I measured it.

I want to be around for my kids and grandkids—so I plan to continue to take care of myself, track my blood pressure, and stay in touch with my doctor.

—Keith, family history of high blood pressure

Intermountain℠ Healthcare

INTRODUCTION

Why be concerned about your blood pressure? Because if it's too high, your blood pressure might be damaging your health right now—and setting the stage for serious problems later on. Compared to people with controlled high blood pressure, people with uncontrolled high blood pressure are:

- 3 times more likely to develop coronary heart disease
- 6 times more likely to develop congestive heart failure
- 7 times more likely to have a stroke

Luckily, **you can do a lot to control your blood pressure—and lower your risk of serious problems.** New national guidelines say you should "start early and treat aggressively" with lifestyle changes and the appropriate use of medications. This booklet provides information to help you do that.

For more health information about controlling your blood pressure, talk to your doctor and visit Intermountain's online Blood Pressure Center: ***intermountainhealthcare.org/BP.***

WHAT'S INSIDE:

see page

Understanding high blood pressure

Managing your high blood pressure begins with understanding what it is and why you should take it seriously.

What is high blood pressure, and why is it bad?

Blood pressure is the force of blood pressing against the walls of your arteries—much like the pressure of water in a garden hose.

You need some blood pressure to move blood through the arteries to where it's needed in the body. However, too much pressure—for too long—can have the following effects:

- Damages and hardens the arteries.
- Weakens the artery walls, making them more likely to break or burst.
- Promotes fatty plaque buildup—called **atherosclerosis**—which narrows the arteries and restricts blood flow.
- Increases the amount of work the heart has to do. This can eventually enlarge and weaken the heart muscle.

These changes affect the heart and all the arteries in the body. They also reduce or restrict oxygen delivery to other organs—such as the brain, the kidneys, and the eyes. This can cause heart disease, stroke, kidney disease, blindness, and other health problems.

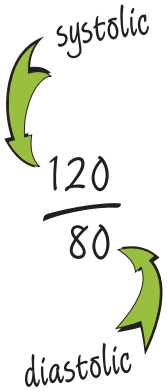
THE SILENT STALKER

More than 30% of people with high blood pressure don't even know they have it. That's why this potentially life-threatening disease is sometimes referred to as the "silent stalker"—or even the "silent killer."

How is blood pressure measured?

Blood pressure is measured with a simple instrument that has a complicated name: a **sphygmomanometer.** This instrument usually has an inflatable arm cuff attached to a machine or gauge that displays the pressure in millimeters of mercury (mmHg).

A blood pressure measurement is expressed as 2 numbers: systolic "over" diastolic.



- **Systolic blood pressure**—the top number—is the pressure in your arteries when the heart contracts, or beats, pushing blood through the arteries.
- **Diastolic blood pressure**—the bottom number—is the pressure remaining in your arteries when the heart relaxes between beats.

Both of these numbers are important measures of the stress on your artery walls. If either number is too high, you could have **hypertension,** which is the medical term for high blood pressure.

How is high blood pressure diagnosed?

Before diagnosing high blood pressure, your healthcare providers will check—and recheck—your blood pressure. They'll also ask questions about your personal and family health history, check your weight, and possibly do some lab tests, an EKG, and other tests. Part of the reason for these tests is to find out if another condition is causing your high blood pressure—or if your high blood pressure is leading to other problems (such as heart or kidney disease).

In some cases, your doctor may ask you to take and record your own blood pressure at home. This strategy can help establish your normal blood pressure pattern. See pages 18 and 19 of this booklet for more information on self-monitoring your blood pressure.

What do my numbers mean?

CATEGORY	SYSTOLIC		DIASTOLIC	
Normal	less than **120**	**and**	less than **80**	Good news! Maintain a healthy lifestyle to keep your blood pressure within normal limits. Have your blood pressure rechecked at least every 2 years.
Prehypertension	**120-139**	**or**	**80-89**	Your blood pressure could be a problem. Take steps now to be physically active, control your weight, eat healthfully, quit smoking, and manage your stress. Have your blood pressure rechecked at least once a year.
Hypertension	**140** or higher	**or**	**90** or higher	You have high blood pressure. In addition to making positive lifestyle changes, you'll probably be prescribed at least one medication to help you keep your blood pressure below 140/90. Be sure to take your medication regularly as prescribed.

The numbers in the table above are used to *diagnose* high blood pressure. Your care provider may set a different *treatment* goal for your blood pressure (**target BP**). For most people, the target BP is less than 140/90. But for some people—like those with diabetes or kidney disease—the target BP may be lower.

KNOW YOUR NUMBERS!

Blood pressure can be unhealthy even if it stays only slightly above the normal level. And the higher it rises, the greater the health risk. Know your numbers! Have your blood pressure measured regularly. It's easy and painless.

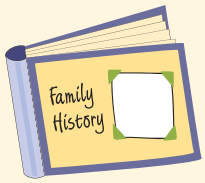
How low is too low?

Some people have a naturally low blood pressure, without any problems. However, for some people, a drop in blood pressure can bring symptoms. If your blood pressure goes below about 100/50—and you have any symptoms like dizziness or vision changes—talk with your care provider. You may need an adjustment to your treatment plan.

What causes high blood pressure?

For most cases of high blood pressure, it's hard to pinpoint any one specific cause. However, there are factors that have been proven to increase your risk for developing high blood pressure. Some of these risk factors are not under your control. But although you can't change them, knowing what they are can help you realize the importance of reducing your risk in other ways.

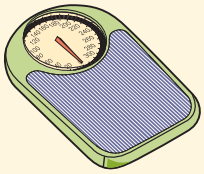
Risk factors you CAN'T change



- **Family history.** High blood pressure tends to run in families.
- **Age.** In general, the older you get, the greater your chance of having high blood pressure. The most common age for men to first develop high blood pressure is between the ages of 35 and 50—and for women, after menopause.
- **Race—especially African-American descent.** African Americans have a higher risk for developing high blood pressure than any other ethnic group. Not only is high blood pressure more common in this group, but it happens at an earlier age and is often more severe.

High blood pressure is 2 to 3 times more common in women taking birth-control pills, especially in women who are overweight or obese. If you're taking birth-control pills—or are considering doing so—talk with your doctor about the risks and benefits.

Risk factors you CAN change



- **Inactivity.** People who aren't regularly active have a 20 to 50% increased risk of developing high blood pressure.
- **Overweight and obesity.** Excess weight puts a lot of extra stress on your heart and arteries. It not only raises your blood pressure, but makes you more prone to other diseases as well.
- **Diet.** Many different elements of your diet can affect your blood pressure—including eating too much salt, drinking too much alcohol, and having a poor diet in general.
- **Smoking.** Each time you smoke a cigarette, it causes an immediate and significant rise in your blood pressure. Over time, smoking can severely damage your blood vessels.
- **Stress.** One of the ways your body responds to stress is by raising your blood pressure to handle the situation causing your stress. Unmanaged and ongoing stress can keep your blood pressure high.

Managing high blood pressure with BP MAWDS

If you've been told you have high blood pressure, don't be discouraged. It's something that you and your healthcare providers can work together to control. It usually requires some lifestyle changes, and often requires one or more medications. To help you remember and follow the important elements of blood pressure management, healthcare providers at Intermountain Healthcare use the term MAWDS.

M

Take your MEDICATIONS

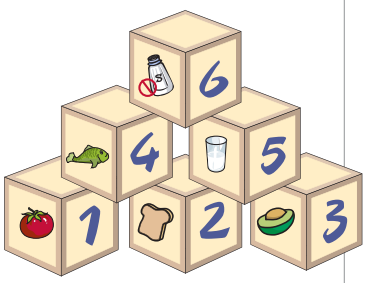
A

Stay ACTIVE each day

W

Maintain a healthy WEIGHT

D



Follow a healthy DIET

S

Stop SMOKING and manage STRESS

Changing the stats

Most patients with high blood pressure have not yet managed to control their blood pressure. That's because they don't make sufficient lifestyle changes, don't take medication, or don't take enough medication to achieve control. **In fact, less than 33% of Americans with high blood pressure are on adequate therapy.** And another **26%** are on some form of therapy, but don't have their blood pressure under control.

You can improve these statistics by faithfully following BP MAWDS.

M
MEDICATION

Take your medications

Along with lifestyle changes, many people will need to take **1 or more medications** to keep their blood pressure under control. If you've been prescribed medications for your blood pressure, make sure you understand what they do—and how to take them. Then do it!

Tips for managing your medication

- Make sure you know the names of each of your medications and what they're for. Use the table on the following page to learn more about your medications.
- Make sure you understand exactly how to take your medications—including when to take them, how much to take, whether to take them with food, and what to do if you miss a dose.
- Make taking your medications part of your daily routine when possible—for instance, take them when you brush your teeth or do some other regular activity.
- Make sure your healthcare providers know what other medications you're taking. Talk with your care providers before you take any over-the-counter (OTC) medications or supplements. Some OTC substances can affect how your prescription medications work.
- Plan ahead for refills. If you can, order more medications when you're down to a 2-week supply.
- Don't stop taking your medications just because your blood pressure is okay. That usually just means your medication is working. Always talk to your doctor before making ANY changes to your medication routine.

Medication Myths

1

myth **Blood pressure medications cost too much.**

fact Studies have shown that some of the least expensive blood pressure medications—such as many diuretics—are just as effective in controlling your blood pressure as most of the newer, brand-name drugs. If you're worried about cost, talk to your doctor. There may be a less expensive drug or a generic form you can use instead.

2

myth **Blood pressure medications have too many side effects.**

fact Less than 10% of people experience annoying side effects from blood pressure medications—and changing medication or dose of medication can usually reduce or eliminate these effects.

3

myth **I've reached my blood pressure goal. I don't need my medications anymore.**

fact Blood pressure medications help lower blood pressure to a safe level, but usually only as long as you take them. If you stop taking your medications, your blood pressure can go back to where it was before treatment. Continued treatment and follow up is important. You may be able to stop your medication in some cases, but you need to work closely with your doctor to do so.

Common categories

of blood pressure medications

It's important to know the names of all your medications and what they're for. The table below lists the most common categories of blood pressure medicines and how they work. Your doctor will prescribe the best medications for your unique health situation—considering other health conditions you may have. You may be on more than one medication, or a combination drug that combines medications from 2 different categories.

Ask your healthcare provider what categories your blood pressure medications are in. Write the name(s) of each medication you're taking in the appropriate space below.

Medication category	How these medications help lower blood pressure	My blood pressure medications
Diuretics	Most diuretics lower blood pressure by working in the kidneys to reduce the amount of sodium and water in the body. Some diuretics may cause your body to lose potassium and require you to take potassium supplements, while others do not. Some diuretics also help the blood vessels open wider to lower blood pressure. Your doctor may prescribe more than one diuretic at a time.	
Angiotensin Converting Enzyme (ACE) Inhibitors	ACE inhibitors prevent formation of a protein—called angiotensin II—that causes blood vessels to narrow. This helps the blood vessels open wider, and pressure goes down. ACE inhibitors may cause a cough. If they do, contact your healthcare provider.	
Angiotensin receptor blockers (ARBs)	ARBs block the effects of a protein called angiotensin II that causes blood vessels to narrow. Therefore, blood vessels open wider and pressure goes down.	
Beta blockers	Beta blockers reduce nerve impulses to your heart and blood vessels, thereby lowering the heart rate and decreasing the force with which the heart beats.	
Alpha blockers	Alpha blockers reduce nerve impulses to blood vessels, allowing blood to flow more easily.	
Calcium channel blockers	Calcium channel blockers keep calcium from entering the muscle cells of your heart and blood vessels. Therefore, the blood vessels open wider, and pressure goes down.	
Combination drugs	Combination drugs can bring the benefits of 2 or more of the above medications—sometimes in one pill. For example, you may be prescribed a drug that contains 2 different types of diuretics, a diuretic and an ACE inhibitor, a diuretic and a beta blocker, and so on.	
Other medications I'm taking		

A ACTIVITY

Stay active each day

Everyone needs regular physical activity to stay healthy. Being physically active is one of the most important things you can do to prevent or control high blood pressure. According to the American Heart Association, people who are active have up to a 50% decreased risk of developing high blood pressure. They also find it easier to maintain a healthy weight and reduce their risk of heart disease in other ways.

It all adds up!

According to the American Heart Association and other experts, not all activity needs to come from formal exercise sessions. ALL activity adds up to better health. Here are some tips for adding more activity to your lifestyle:

- Take the stairs instead of the elevator.
- Walk whenever you can, instead of driving.
- Get off the bus a stop early.
- Park farther away and walk.
- Stand up while talking on the phone.
- Lose your TV remote control—get up to change channels.
- At work, use lunch hours and coffee breaks to take a walk around the building.
- Make social occasions more active—instead of dining out, go dancing!

Activity questions & answers

Q How much is enough?

A Although any amount of exercise is better than none, here's the most recent advice from experts: **at least 30 minutes of moderate-level physical activity on most or all days of the week.** To reap even greater health benefits—or to lose weight—aim for 60 to 90 minutes a day. Progress gradually by adding more minutes per session or more sessions per day. If your doctor approves, exercise more vigorously for some of your sessions.

Q What kinds of activities count?

A Some of your activity should come from regular sessions of continuous **aerobic** exercise. Aerobic activities train your heart, lungs, and muscles to use oxygen for energy. They use your larger muscle groups and are usually continuous, rhythmic, and invigorating. Examples are brisk walking, jogging, cycling, swimming, dancing, or playing sports. While it's good to build up your exercise tolerance to be able to do 30 to 60 continuous minutes of these activities, you can split the time up into several shorter (10 to 15 minute) sessions. This may help if you have a busy schedule.

Not all of your daily activity needs to come from formal aerobic exercise sessions. Daily activities such as gardening, climbing stairs, raking leaves, shoveling snow, washing windows—even housework—can bring important health benefits too. You can also do a lot to improve your fitness by simply changing a few habits. Look to the sidebar on the left for some ideas.

EASE IN AND EASE OUT

To prevent injury, it's important to ease into and out of each exercise session gradually. This means warming up and cooling down at a lower intensity. Regular, gentle stretching is also important to help you maintain or improve your flexibility and range of motion.

Q What does moderate-level intensity mean?

A What is moderate for one person may be easy or hard for another. In general, moderate-level exercise has the following characteristics:

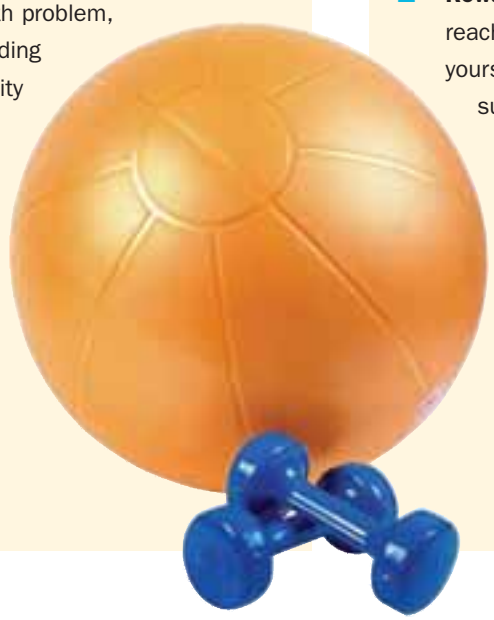
- You're breathing a little harder, but you're not out of breath.
- You can carry on a conversation, but you might not be able to sing a song.
- You might be perspiring lightly, but you aren't dripping with sweat.
- Your muscles may feel a little fatigued, but they're not burning from pain.
- You feel invigorated, but you're not exhausted.

As your fitness level improves, the level of work that is "moderate" for you will change. For example, walking at a 2 mph pace might feel moderate to you now—but as you get stronger, it will begin to feel easier. You might have to gradually increase your pace to 3 or 4 mph to maintain a moderate level of exertion.

Q Do I need to see a doctor first?

A Most people don't need to see a doctor before they start a moderate-level physical activity program. However, you should see a doctor first in the following circumstances:

- If you have heart trouble or have had a heart attack.
- If you're over age 50 and are not used to moderate-level physical activity.
- If you have a family history of heart disease at an early age.
- If you have any other serious health problem, including obesity



Q How can I stay motivated?

A

- **Make it fun.** Choose activities you enjoy.
- **Exercise with a buddy.** A supportive friend can help you stay on track.
- **Set goals.** Set both short-term and long-term goals for how often and how much you'll exercise.
- **Track your progress.** Write down how much you exercise every day, or simply put an "X" on the calendar. Over time, your progress will be plain to see!
- **Reward yourself.** When you reach an activity goal, give yourself a heart-healthy treat—such as a night out on the town, a new shirt, or a nice hot bath.

What's the biggest risk of exercise? Not starting!

W
WEIGHT

Maintain a healthy weight

Research has shown that being overweight not only increases your risk of developing high blood pressure and heart disease, but also increases your risk of premature death and disability. The good news is that losing weight can significantly reduce your risk.

Achieving safe and permanent weight loss

Losing weight isn't easy. Safe, permanent weight loss only comes from living a consistently active lifestyle, making healthy food choices, and limiting portion sizes. Crash diets or fad diets may help you drop weight quickly, but they rarely work in the long run. And they can be dangerous for your health. Your goal should be to develop lifelong habits that keep your weight in a healthy range.

Calories in/calories out

Most experts still agree that successful weight loss and weight maintenance depends on balancing energy input with energy output. A calorie is a measure of the energy value of food. Here's how it works:

- If you eat more calories than you use up with activity, you'll gain weight.
- If you eat fewer calories than you use up with activity, you'll lose weight.
- If you eat the same amount of calories you use up with activity, you'll maintain your weight.

Whether you need to lose weight—or maintain your current weight—the principles are the same:

- Live a consistently active lifestyle
- Make healthy food choices
- Limit portion sizes

The information on activity (pages 10 and 11) and diet (pages 14 and 15) can help you learn and follow these principles.

Don't go it alone

Before you start on a weight-loss program, consult with your doctor, a registered dietitian, or another qualified health professional. They can help you determine a target weight range, figure out how many calories you should have each day, and teach you ways to adjust your diet and exercise program to reach your goals. They can also help you with ideas to stay motivated. Also, it helps to find a supportive friend or family member. A little encouragement can go a long way in helping you stay on track.

How do I know if I'm overweight?

There are two common measures used by healthcare providers to help determine if you're at an unhealthy weight and at higher risk for disease: the **body mass index (BMI)** and **waist circumference.**

1 Body mass index (BMI)

BMI is a mathematical formula that expresses the ratio of your weight to your height. Studies have shown that this ratio is a better predictor of body fat than any other measure of height and weight. All adults with a BMI of 25 or more are considered to be at risk for premature death and disability, and this risk increases as the severity of obesity increases.

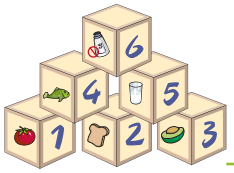
2 Waist circumference

Studies have shown that carrying too much fat around your stomach can also increase your disease risk. Use a tape measure to measure around your natural waistline. For women, more than 35 inches is too high, and for men, more than 40 inches is too high.

Body Mass Index (BMI) Table

	Normal						Overweight					Obese									
BMI	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**
Height	**Body Weight (pounds)**																				
4'10"	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186
4'11"	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193
5'	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199
5'1"	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206
5'2"	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213
5'3"	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220
5'4"	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227
5'5"	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234
5'6"	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241
5'7"	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249
5'8"	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256
5'9"	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263
5'10"	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271
5'11"	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279
6'	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287
6'1"	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295
6'2"	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303
6'3"	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311
6'4"	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320

▲ To use the BMI table, find your height in the left-hand column, and then move across to your weight. The number at the top of the column is the BMI for your height and weight. The label across the top indicates which category you're in (normal, overweight, or obese). Keep in mind that BMI should not be the only tool used to assess risk. For example, people with high muscle density (such as athletes) may be perfectly healthy at a higher BMI.



D DIET

Follow a healthy diet

What you eat and drink can have a big effect on your blood pressure. And it's not just about salt. A generally healthy diet—following the 6 basic building blocks below—can help lower your blood pressure.

6 building blocks

Eat lots of fruits and vegetables.

Fruits and vegetables are a great source of fiber, are rich in vitamins and minerals, and contain substances called antioxidants and flavonoids, both of which have been shown to improve heart health. Your goal is to eat 3-5 servings of fruits, and 3-5 servings of vegetables every day.

Eat more whole grains.

Grains and starches are a staple of diets all over the world. However, you need to learn to make healthy choices within this group. Choose whole grains and unprocessed starches, which contain dietary fiber, vitamins, and minerals. Examples are whole wheat, brown rice, oats, barley, cornmeal, and sweet potatoes. Limit or avoid refined starches such as white bread, white pasta, and white rice. Especially avoid desserts and sweets—they're usually made with refined starches, and are also high in sugar.

Choose unsaturated fats and oils.

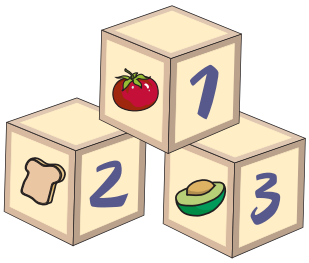
Everyone needs some fat in their diet. Fats provide essential nutrients and add flavor and texture to meals. Eating the right types of fats is the trick. Look for foods that are higher in unsaturated fats (monounsaturated or polyunsaturated) and lower in saturated fat or hydrogenated fat (called trans fat). Also, keep your total fat intake to less than 25-35% of your total daily calories.

Food fundamentals

These basic food fundamentals apply to everyone—no matter what their health condition:

- Eat a **variety of foods** to ensure good nutrition.
- Watch **portion sizes** carefully to maintain a healthy weight.
- Eat more **fresh, whole foods** to get the most nutrients from each serving.
- Eat **sweets sparingly.** Sweets tend to be high in calories, but low in nutritional value.

▶ For more details and help following the 6 building blocks for heart-healthy nutrition, ask your healthcare provider for a copy the Intermountain booklet: *Building Blocks: Nutrition for a Healthy Heart.* Or access it online at **intermountainhealthcare.org/BP.**



Do the DASH!

DASH stands for "Dietary Approaches to Stop Hypertension." It's an eating plan promoted by the National Institutes of Health. It has been proven to lower high blood pressure, especially when combined with salt restriction. The principles are similar to the 6 building blocks described below. Information on the DASH eating plan is available on the NIH website at the following address:
www.nhlbi.nih.gov/health/public/heart/hbp/dash.

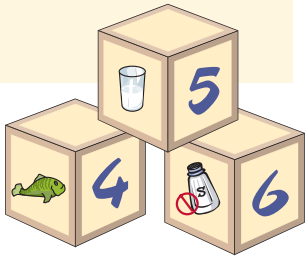
for heart-healthy eating

Choose heart-healthy proteins.

Protein is an important element in a healthy diet. Unfortunately, many sources of protein—such as red meat and pork—are often high in saturated fat and cholesterol. But that doesn't mean you can't eat them. Just limit how much and how often, and learn to choose the leanest cuts. And make other heart-healthy animal or plant proteins a regular part of your diet. Examples of healthy animal proteins are fish and shellfish, poultry, and egg whites. Healthy plant proteins include beans, soy products, nuts, and seeds.

Select low-fat dairy products or dairy alternatives.

Dairy products are a good source of calcium, protein, and vitamins A and D. However, they tend to be high in fat and cholesterol. The lactose, or milk sugar, in dairy products can also be hard for some people to digest. Sticking to low-fat dairy products or dairy alternatives will give you the same nutritional benefits without the drawbacks. Stick with products that are 1% fat or less, and aim for 2 to 3 servings every day. Try soymilk or powdered milk as a substitute for milk. Watch out for non-dairy whipped cream and coffee creamers, which contain a lot of saturated fat.



Limit sodium (salt), sugar, and alcohol.

Limiting sodium (salt) intake is important if you have high blood pressure—and vital if you have heart failure. Sodium is a mineral found in most foods, especially processed foods. Our bodies need sodium to function, but most Americans consume almost 3 to 4 times the amount they need.

Most sweets have a lot of flavor—and a lot of calories—but little nutritional value. Keep sweets to a minimum.

A little bit of alcohol may not hurt, but keep your intake moderate. Women should have less than 1 drink a day, and men should have less than 1 or 2 drinks a day.

S SMOKING & STRESS

Stop smoking and manage stress

Quitting smoking and learning to manage stress are two more ways you can lower your blood pressure. You'll also improve your overall health—and feel better too!

Ask your healthcare provider for a copy of Intermountain's *Journey to Freedom (Un viaje a la Libertad)*—or, access it online at **intermountainhealthcare.org/BP**. This booklet presents a step-by-step approach to quitting. It also lists more Intermountain, state, and national resources to help you.

Kicking the tobacco habit

Smoking is bad for your heart and arteries. Among other things, it damages the tissues of the artery walls and narrows blood vessels. These things can speed the buildup of fatty plaque in your arteries and increase your blood pressure. Smokers have at least twice the risk of heart attack and stroke as non-smokers. The good news is that if you quit smoking now, you'll see immediate and significant health benefits—even if you've smoked for many years.

If you smoke, talk to your healthcare providers. They can help you plan a way to quit, and can suggest programs and methods to help you cope with the stress of quitting. They may also advise medications to help reduce your craving for cigarettes and ease your withdrawal symptoms.

Resources to help you quit smoking

Smoking cessation programs

Utah Tobacco Quit Line
www.tobaccofreeutah.org
1-877-567-8788

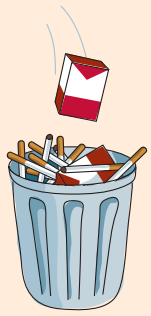
Smoke Breakers
801-442-5599

Free & Clear
www.freeclear.com
1-800-292-2336

Freedom from Smoking
www.ffsonline.org
1-800-586-4872

Websites

- **www.utah.quitnet.com**
- **www.cdc.gov/tobacco**
- **www.nicotine-anonymous.org**
- **www.smokefree.gov**
- **www.whyquit.com**



Taking action against stress

Everybody has stress in their life. Some stress can even be good for you. It can energize you and make you more productive. However, when stress becomes long-lasting (chronic), it can have many negative effects on your health—including high blood pressure.

Put simply, stress is the body's emotional and physical response to a change. The change can be anything from the birth of a baby or scoring a touchdown to traffic jams, financial pressures, divorce, or illness. One of the ways your body responds to stress is by shifting energy from your immune system and the digestive system to the heart—increasing heart rate and blood pressure. This is fine for short periods of time, but if these changes are frequent or prolonged—as in chronic stress—they can take a toll on your body. Chronic stress without periods of relaxation or relief can deplete your energy, cause relationship problems, and lead to smoking, drinking, overeating, and other negative behaviors. Chronic stress can also lead to depression.

TAKE the stress test

Pay attention to your body. Learn to recognize these symptoms of stress.

Behavioral symptoms:

- Sleeping too little or too much
- Nightmares
- Nervous habits like nail-biting or foot-tapping
- Decreased sex drive
- Teeth grinding
- Irritability or impatience
- Crying over minor incidents
- Dreading going to work or other activities

Physical symptoms:

- Migraine or tension headaches
- Digestive problems like heartburn or diarrhea
- Shallow breathing or sighing
- Cold or sweaty palms
- Muscular tension and aches in the jaw, neck, back, or shoulders

...then take ACTION

- **Stop and think.** When you first notice stress symptoms, stop what you're doing—or thinking—and take a few deep breaths. Then see what you can do mentally or physically to alter your outlook or your body's response.
- **Look at the bright side.** Studies have shown that negative emotions put you at higher risk for heart disease. You may be able to undo the damage by fostering a more positive frame of mind. Look for the positive side of each situation, and put things in perspective. Give others—including yourself—the benefit of the doubt. Use humor when appropriate to alleviate stressful situations.
- **Develop de-stressing habits.** Get regular exercise, take time to relax, eat a healthy diet, and get enough sleep. These things aren't always easy to do, but they are necessary to help strengthen your mind and body to face life's stressors. Reassess how you're doing in these categories everyday, and make a plan for how to improve.

Monitoring your progress

For most people with high blood pressure, home monitoring is an important part of the treatment plan. Here's how it can help:

- Helps your healthcare providers—and you—see how well lifestyle changes or medications are controlling your blood pressure. This can help fine-tune your treatment plan.
- Helps doctors evaluate whether you might have "white-coat" hypertension, which means your blood pressure tends to be high only at the doctor's office.
- Helps keep you focused on staying healthy—and motivates you to continue taking care of yourself.

▲ ***Use the BP Tracker***

Ask your healthcare provider for a copy of Intermountain's *BP Tracker*—a pocket-size tool you can use to record your blood pressure.

The BP Tracker is also available online at intermountainhealthcare.org/BP. You can print out pages as you need them.

How often to monitor

How often you measure and record your blood pressure is up to you and your doctor. When you're first diagnosed with high blood pressure, or after changes to your medications, you may be asked to take your blood pressure daily—maybe even twice a day (morning and evening). Once your blood pressure becomes more stable, you can monitor less frequently.

Choosing a monitor

There are many types of blood pressure monitors on the market. You can purchase them in drugstores, supermarket pharmacy departments, or other large stores. Look for a monitor with a cuff that wraps around the upper arm and inflates automatically. (Avoid wrist cuffs.) Arm monitors have been found to be most accurate and consistent. Most arm monitors measure pressure while the cuff is deflating. The results are shown digitally on a small screen, which is usually separate from the cuff. A good automatic arm monitor costs between $40 and $100.

It's important that the arm cuff is the appropriate size for your arm. Most standard-size cuffs fit upper arms that are 9 to 13 inches around. If your upper arm is more than 13 inches around, you should buy a monitor with a large cuff. You may have to pay extra or order the large cuff separately—but it's worth it. Using the right size cuff will improve the accuracy of your blood pressure measurements.

Getting an accurate reading

It's vital that blood pressure measurement is accurate. You don't want your blood pressure treatment to be based on incorrect measurements. Here are some tips to ensure you get the most accurate readings possible:

- Use a blood pressure machine that's been compared to the one used in your healthcare provider's office. To continue to ensure accurate home blood pressure measurements, have your healthcare provider check your monitor about every six months. If you drop the monitor, or readings change abruptly, have it checked right away.
- Try to get readings at a consistent time each day—usually morning or evening. Your blood pressure can fluctuate by 20-30 mmHg at various times of the day and can change based on what you're doing.
- Don't take your blood pressure within a half hour of eating a heavy meal, drinking caffeine, exercising, or using tobacco products. These things can temporarily raise your blood pressure.
- Remove jewelry or clothing that interferes with cuff placement.
- Make sure the blood pressure cuff is the correct size for your arm, and that it's positioned correctly with no wrinkles in the cuff.
- Sit quietly for 5 minutes or more, with both feet flat on the floor, before taking your blood pressure. If possible, rest your arm at heart level on a table or arm of a chair.
- Take 3 readings about 5 minutes apart.

▲ Sit quietly for 5 minutes or more, with both feet flat on the floor, before taking your blood pressure. If possible, rest your arm at heart level on a table or the arm of a chair.

Following up with your healthcare provider

Your healthcare provider will probably request follow-up appointments about monthly until your blood pressure goal is reached. After that, it's important to follow up at least every 6 months to make sure you're still on track. Take your *BP Tracker* or other blood pressure record with you to each appointment.

Even if you have normal blood pressure, regular follow-up is important. People with normal blood pressure (systolic less than 120 and diastolic less than 80) should have it rechecked **at least every 2 years.** Those with prehypertension (systolic 120-139 or diastolic 80-89) should have their blood pressure rechecked **at least once a year.**

You can find this booklet and other blood pressure resources at **intermountainhealthcare.org/BP.**

Intermountain℠ Healthcare

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