# HYPERTENSION DISEASE MANAGEMENT PROGRAM

### Welcome to Better Health

Humana Military offers disease management programs to assist beneficiaries with managing chronic diseases to improve their health. Our team partners with beneficiaries and their clinicians to identify problems, establish goals and monitor progress through regular follow-up care.

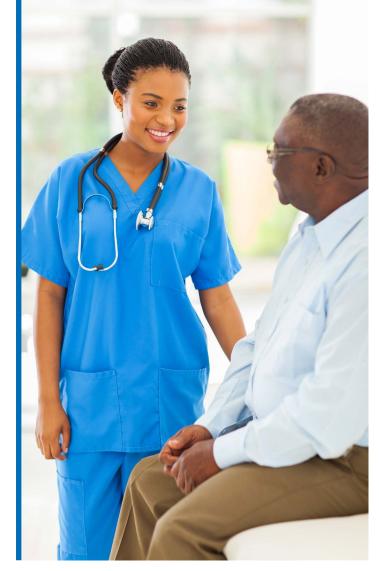
We are excited to welcome you to our anxiety disease management program. The program is offered to you at no cost and participation is not required.

This booklet provides you with some information about anxiety and can help with understanding your condition and identifying and managing your symptoms.

Please visit our website at **HumanaMilitary.com/DM** or call **(800) 881-9227** for more information about hypertension and our disease management initiative.

# Controlling Your Hypertension

- 1. Schedule and keep regular appointments with your doctor.
- 2. Follow your treatment/medication plan and adopt healthy lifestyle habits.
- 3. Do not smoke.
- 4. Lose weight if you are overweight.
- 5. Monitor and restrict your salt/sodium intake.





**EAST REGION** 

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### Commonly Asked Hypertension Questions and Answers

#### WHAT IS HYPERTENSION?

Hypertension is more commonly known as high blood pressure. High blood pressure is defined as having a systolic blood pressure (the top number) greater than 140 mmHg or a diastolic blood pressure (the bottom number) greater than 90 mmHg. When a person has hypertension, it causes stress on the vessels due to increased pressure and over time can lead to complications. Having high blood pressure places a person at higher risk of complications such as stroke, heart attack, heart failure and kidney disease.

#### **HOW IS IT DIAGNOSED?**

When a person's blood pressure registered as elevated twice within a four-week period, they are diagnosed with hypertension. At this point, a treatment plan will be determined and can include lifestyle modifications, medication or both. Upon follow-up, your doctor will perform an assessment, discuss concerns or questions, check your blood pressure and possibly complete some lab work.

## RECOMMENDED LAB TESTS FOR THOSE WITH HYPERTENSION/PREHYPERTENSION

- Urinalysis (a urine test)
- Basic metabolic panel (potassium, sodium, Blood Urea Nitrogen (BUN), creatinine, glucose)
- Non-fasting lipid profiles (cholesterol, HDL, LDL, triglycerides)
- Electrocardiogram (EKG)
- Hematocrit and calcium

#### WHAT ARE THE CAUSES OF HYPERTENSION?

Causes of hypertension can be broken into two categories:

- Primary causes (factors that may directly cause) such as:
  - Genetic predisposition (family history)
  - Central adiposity (body fat around your abdomen/torso)
  - Sedentary lifestyle (too little activity)
  - Dietary/food intake (things that are high in fat, sodium or calories)
- **Secondary** (factors over time) such as:
  - Kidney disease
  - Obstructive sleep apnea/breathing problems
  - Tobacco/Drug use
  - Adverse effect of medications

#### **RISK FACTORS FOR HYPERTENSION INCLUDE:**

- Being over 60 years of age
- Overweight
- Smoking
- Men (more so than women)
- African Americans
- · People with diabetes and kidney disease

#### WHAT ARE THE SYMPTOMS OF HYPERTENSION?

Hypertension usually has no symptoms. However, it can be easily detected through regular monitoring at home or in the doctor's office. It is important to always continue treatment even with no symptoms so that complications do not arise in the future, such as stroke, heart attack, heart failure or kidney disease.





#### **HOW IS HYPERTENSION TREATED?**

Your doctor will work with you to decide a treatment plan to control your hypertension. Hypertension treatment typically includes:

- Monitoring blood pressure during yearly appointments and at home as recommended by your physician
- Weight reduction: 10 pounds may lead to decreases with hypertension
- Exercise: Recommended at least 30-45 minutes, four to five days weekly
- Following a diet called Dietary Approaches to Stop Hypertension (DASH) diet. This is a diet that recommends:
  - Eating vegetables, fruits and whole grains
  - Eating healthy low fat proteins, such as fish and chicken
  - Avoiding high intake of sugars, salt and fatty foods/fried foods or you may be prescribed a dietician/physician-led
     Mediterranean diet which is similar to the DASH diet but is more stringent.
- **Decreasing sodium intake:** To no more than 2300 mg/day by:
  - · Not adding salt to food
  - Eating fresh foods
  - · Always opting for low sodium options when able

- Alcohol reduction
- Mind/body therapy: Such as meditation or yoga
- Medication management: There are different types of medications that can help control your blood pressure. It is important to remember that continued use of medication is important to keep your blood pressure in normal range. Medications such as thiazide diuretics, ACE inhibitors, Angiotension receptor blockers and calcium channel blockers help to lower blood pressure.

#### **GOALS OF THERAPY**

The goal with hypertension management is to:

- Keep you as healthy as possible and reduce the risk of complications in your future. With correct management, it is possible to live a healthy life.
- Have a blood pressure of less than 150/90 (typically), or 150/85 in patients with diabetes.

Remember, hypertension does not usually have symptoms and it is important to continue medications unless your doctor directs you otherwise.

### Recommended Dosage for Selected Hypertension **Drug Therapy**

Drug <sup>a</sup>	Usual Dose Range	Comments <sup>h</sup>		
		Thiazide-Type Diuretics		
Chlorthalidone <sup>b</sup>	12.5-25 mg daily	May cause hyperuricemia/gout     Monitor K+ levels		
HCTZ <sup>b</sup>	12.5-50 mg daily <sup>f</sup>	May cause photosensitivity (rare)		
Indapamide	IR: 2.5 mg daily SR: 1.25 – 2.5 mg daily	<ul> <li>SR not currently available in the US</li> <li>For complete drug information, review the manufacturer's prescribing information</li> </ul>		
	Angi	otensin-Converting Enzyme Inhibitors		
Benazepril	10-40 mg/day (daily or divided bid)	<ul> <li>May cause hyperuricemia/gout</li> <li>Monitor K+ levels</li> <li>May cause photosensitivity (rare)</li> </ul>		
Enalapril	5-40 mg/day (daily or divided bid)	When pregnancy is detected, discontinue as soon as possible, due to potential for fetal and neonatal morbidity and death. Patients of childbearing		
Fosinopril	10-40 mg daily	potential should also be educated about the risks.		
Lisinoprilb	10-40 mg daily	<ul> <li>Do not use if history of angioedema</li> <li>Avoid concomitant use of ACEI with ARB or direct renin inhibitor due</li> </ul>		
Ramipril <sup>b,c</sup>	2.5-20 mg/day (daily or divided bid) (10 mg daily for CV risk prevention)	<ul> <li>Avoid concomitant use of ACEI with ARB of direct fellin limitator due to increased risk of hypotension, syncope, increased K+, and changes in renal function</li> <li>Monitor K+ and kidney function; use caution if combined with, K+ sparing diuretic, or K+ supplement</li> <li>Consider interruption or discontinuation in patients who develop clinically significant decline in kidney function after initiation of therapy, until further work-up, as indicated (e.g., renal artery stenosis)</li> </ul>		
		Angiotensin II Receptor Blockers		
Azilsartan <sup>c</sup>	40-80 mg daily	When pregnancy is detected, discontinue as soon as possible. Drugs that act		
Candesartan <sup>c</sup>	8-32 mg daily	directly on the renin angiotensin system can cause injury and death to the		
<b>Eprosartan</b> °	400-800 mg/daily (daily or divided bid)	developing fetus. Patients of childbearing potential should also be educated about the risks.		
Irbesartan <sup>c</sup>	150-300 mg daily	Avoid concomitant use of ACEI with angiotensin II receptor blocker  or direct repin inhibitor due to increased risk of hypotension, syncope		
Losartan <sup>b</sup>	25-100 mg/day (daily or divided bid)	or direct renin inhibitor due to increased risk of hypotension, syncope, increased K+, and changes in renal function  • Monitor K+ and kidney function; use caution if combined with, K+ sparing		
Olmesartan <sup>c</sup>	20-40 mg daily	diuretic, or K+ supplement		
Telmisartan <sup>c</sup>	20-80 mg daily	Consider interruption or discontinuation in patients who develop clinically		
Valsartan <sup>b,d</sup>	80-320 mg daily	significant decline in kidney function after initiation of therapy, until further work- up, as indicated (e.g., renal artery stenosis)		
Long-Acting Dihydropyridine Calcium Channel Blockers				
Amlodipine <sup>b</sup>	2.5-10 mg daily	Monitor adverse effects		
Felodipine	2.5-10 mg daily	(DHP CCBs may cause ankle edema, dizziness, flushing, headache)  • Use with caution in patients with hepatic or kidney dysfunction		
Nifedipine SR <sup>b</sup>	30-120 mg daily			

### Recommended Dosage for Selected Hypertension **Drug Therapy**

Drug <sup>a</sup>	Usual Dose Range	Comments <sup>h</sup>			
Aldosterone/Mineralocorticoid Receptor Antagonists					
Eplerenone <sup>c</sup>	50-100 mg/day (daily or divided bid)	<ul> <li>Avoid use if hyperkalemia or severe kidney dysfunction</li> <li>Monitor K+ and kidney function; consider risk vs. benefit if combined with</li> </ul>			
Spironolactone <sup>b</sup>	25-50 mg/daily	ACEI, ARB, K+ sparing diuretic, or K+ supplement  • Higher risk of gynecomastia with spironolactone than eplerenone			
Other Potassium-Sparing Diuretics					
Amiloride <sup>c</sup>	5-10 mg daily	<ul><li>Avoid use if hyperkalemia or severe kidney dysfunction</li><li>Helpful in reducing hypokalemia caused by thiazide diuretics</li></ul>			
Alpha-Adrenergic Blockers					
Doxazosin	1-16 mg daily	Initiate at low doses (1 mg)			
Prazosin	2-20 mg/day (divided bid or tid)	<ul><li>Administer 1st dose at bedtime to avoid syncope</li><li>Avoid use as monotherapy</li></ul>			
Terazosin⁵	1-20 mg daily				
		Beta-Adrenergic Blockers			
No	ncardioselective:	Discontinue with slow taper over one week			
Propranolol	IR: 80-160 mg/day (divided bid) SR: 80-160 mg daily	<ul> <li>Avoid combination with non-DHP CCB due to increased risk of bradycardia</li> <li>As doses increase, cardioselectivity decreases</li> <li>Beta-blockers should be used cautiously in asthma</li> </ul>			
Cardioselective:					
Atenolol <sup>b</sup>	25-100 mg daily (adjust dose in CKD)				
Metoprolol tartrate <sup>b</sup>	IR: 50-300 mg/day (daily or divided bid)				
Metoprolol succinate (XL) <sup>b,d</sup>	SR: 25-200 mg/day				
	Long-Acting Non-Dihydropyridine Calcium Channel Blockers				
Verapamil SR <sup>b</sup>	120-480 mg divided daily-bid	Verapamil may cause constipation; verapamil is contraindicated in AV node			
Diltiazem SR <sup>b</sup>	120-540 mg daily	<ul> <li>dysfunction (2nd or 3rd degree heart block), systolic HF and lower LV function</li> <li>Diltiazem may reduce sinus rate and cause heart block</li> <li>Use CCBs with caution in patients with liver or kidney dysfunction</li> </ul>			
Long-Acting Non-Dihydropyridine Calcium Channel Blockers					
Carvedilol	IRb: 12.5-50 mg/day (divided bid) SRc: 20-80 mg/day	Precautions for beta-blockers apply			
Labetalol <sup>c</sup>	SRc: 20-80 mg/day				

### Recommended Dosage for Selected Hypertension **Drug Therapy**

Drug <sup>a</sup>	Usual Dose Range	Comments <sup>h</sup>		
Peripherally Acting Adrenergic Agents				
Reserpine	0.1-0.25 mg daily	<ul> <li>Monitor for sedation, and nasal congestion</li> <li>Reserpine not currently available in the U.S. due to changes in requirements for raw materials (re-verified 10/15/2014). Refer to FDA Drug Shortages for current information.</li> </ul>		
Direct Acting Vasodilators				
Minoxidil	2.5-100 mg/day (daily or divided bid)	Direct acting vasodilators often need concomitant use of diuretic and betablocker to reduce edema and reflex tachycardia		
Hydralazine <sup>b</sup>	50-200 mg/day (divided bid)	<ul> <li>Monitor for hypertrichosis and pericardial effusions with minoxidil</li> <li>Monitor for headache and SLE (dose-related) with hydralazine</li> </ul>		
Centrally Acting Antiadrenergic Drugs				
Clonidine Tablet <sup>b</sup>	0.1-0.8 mg/day (divided bid)	Monitor for somnolence and dry mouth. Taper dose to discontinue		
Clonidine patch	0.1-0.3 mg patch weekly	Clonidine patches may be useful in selected Patients		
Methyldopa	500-2,000 mg/day (divided bid)			

ACEI=angiotensin-converting enzyme inhibitor; ARB=angiotensin II receptor blocker; AV=atrioventricular; bid=twice daily; CCB=calcium channel blockers; CKD=chronic kidney disease; CV=cardiovascular; HCTZ=hydrochlorothiazide; HF=heart failure; IR=immediate-release; K+=potassium; LV=left ventricular; SLE=systemic lupus erythematosus; SR=sustained-release

- a. Partial list; refer to pbm.va.gov/nationalformulary.asp for items available on the VA National Formulary (VANF) and refer to pec.ha.osd.mil/formulary\_search. php?submenuheader=1 for items available on the DoD Uniform Formulary. All drugs listed are on the DoD Uniform Formulary.
- b. DoD Basic Core Formulary (BCF) item
- c. Item not on VANF
- d. Restricted to patients with chronic heart failure in VA
- e. Reserpine not currently available in the U.S. due to changes in requirements for raw materials (re-verified 10/15/2014; next available supply estimated March 2015). Refer to FDA Drug Shortages for current information.



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