



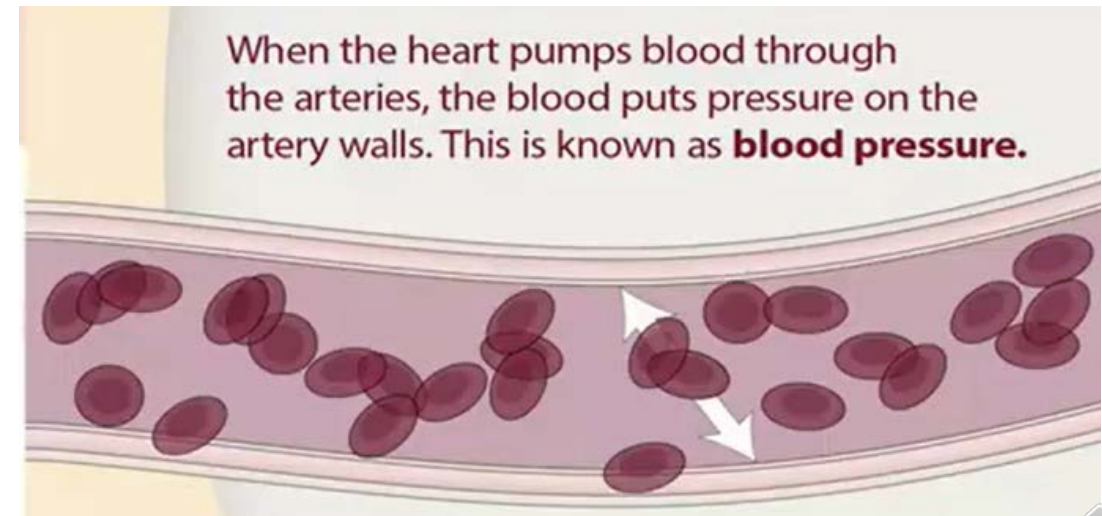
Women & Heart Disease Series

High Blood Pressure



What is Blood Pressure?

- Systolic blood pressure is the first (top/upper) number. It measures the pressure your blood is pushing against your artery walls when your heart beats
- Diastolic blood pressure is the 2nd (bottom/lower) number. It measures the pressure your blood is pushing against your artery walls while the heart muscle rests between heart beats



Why Are We Talking About Blood Pressure?

Why is it important?

- Hypertension Affects Millions
- Known as “The Silent Killer”
- No Symptoms



Women & Blood Pressure Across the Lifespan

How high blood pressure risk shifts across a woman's life

01

Before menopause

Women tend to have lower rates of high blood pressure than men.

02

After menopause

Rates rise quickly — by age 65, women reach about the same, or even higher, rates than men.

03

Higher-risk groups

Some racial and ethnic groups, especially Black women, carry a higher risk.



Risk Factors Unique to Women

- Gestational Diabetes Mellitus
- Pregnancy-induced Hypertension, Eclampsia, and Preeclampsia
- Polycystic Ovarian Syndrome (PCOS)
- Postmenopausal
- Autoimmune Disease-Systemic Lupus Erythematosus, Rheumatoid Arthritis



Menopause and High Blood Pressure

- About 75% of women age 60 and older have high blood pressure and this risk factor increases as they age
- Blood pressure increases post menopause
 - Decreasing estrogen levels → arterial stiffness
 - Weight gain :Postmenopausal women tend to accumulate visceral fat in the abdomen which is associated with insulin resistance inflammation →increased risk of heart disease
 - Increase salt sensitivity → high blood pressure



Other Heart Disease Risk Factors

High Blood Pressure Rarely Occurs Alone

- High Cholesterol (high LDL or low HDL)
- Tobacco Use
- Lack of Physical Activity
- Obesity
- Diabetes Mellitus
- Family History of Premature Cardiovascular Disease (women before age 65)
- Lack of restful sleep



What can Happen if Blood Pressure Stays High?

- Chronic Kidney Disease
- Pregnancy-Related Complications
- Stroke
- Cognitive Decline & Dementia
- Vision Decline or Loss
- Heart Disease
- Peripheral Artery Disease
- Other Health Problems



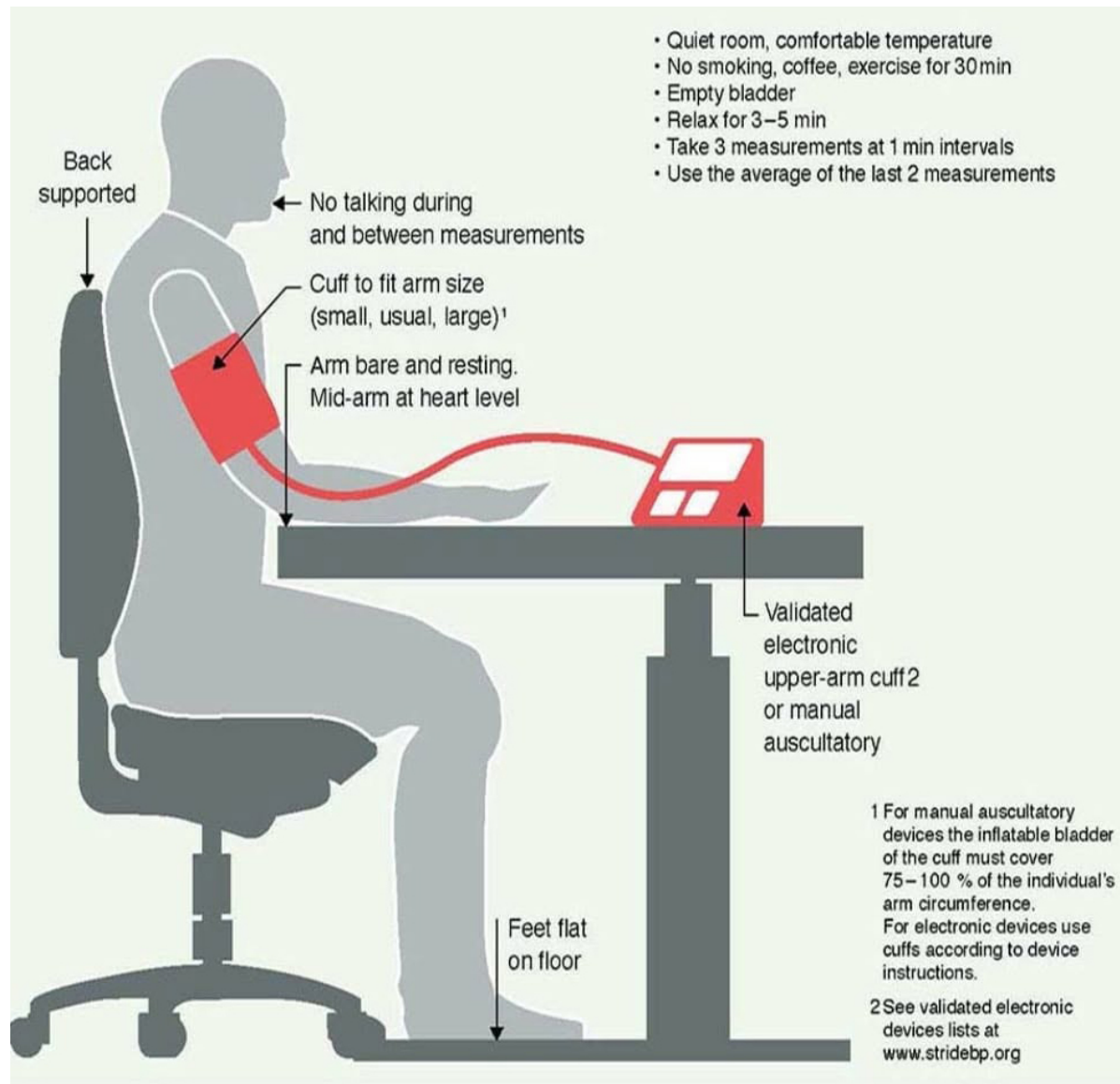
Know Your Numbers!

Categories	Systolic BP (mmHg)		Diastolic BP (mmHg)
Normal	< 120	And	<80
Elevated	120-129	And	<80
Stage I	130-139	Or	80-89
Stage II	≥140	Or	≥ 90
Stage III	>180	Or	> 120

If you experience chest pain, sudden weakness, difficulty speaking, facial drooping, or severe shortness of breath, seek medical care immediately. These are medical emergencies, not just symptoms of high blood pressure. If you have these symptoms, call 911.

≥ 2 Readings on at least 2 separate occasions





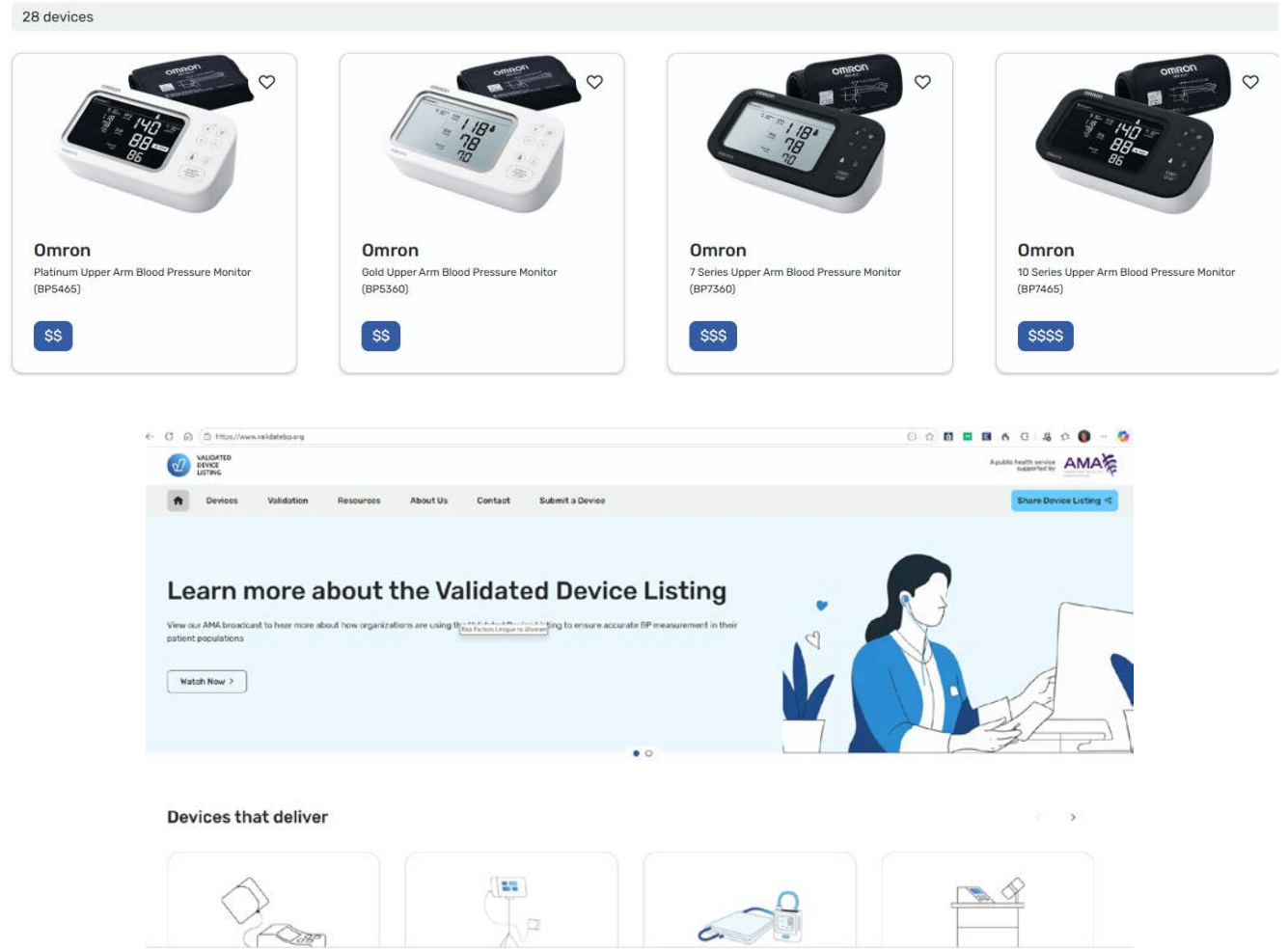
How to take your Blood Pressure at Home

- For manual auscultatory devices the inflatable bladder of the cuff must cover 75%-100% of the individual's arm circumference.
- For electronic devices use cuffs according to the device instructions.
- Here is a good validated device list:
- **www.validatebp.org**



Validatebp.org

- Trusted listing of accurate devices — at every budget
- A great resource for choosing a monitor that suits you
- Accuracy matters far more than fancy features
- Choose a validated upper-arm cuff
- Omron models are reliable — many cost under \$40



Healthy Lifestyle Changes to Lower Blood Pressure

Diet

- Follow the DASH diet or Mediterranean diet
- Limit processed foods, sweets, sugar-sweetened beverages, and trans fats
- Choose whole foods such as fruits, vegetables, legumes, fish, and lean proteins
- Meet with our dietician in cardiac rehab

Avoid tobacco products

- Smoking, vaping, and chewing tobacco can all raise blood pressure

Limit or avoid alcohol use

- Women: up to 1 drink per day or avoid alcohol altogether

Exercise

- Aim for at least 150 minutes of moderate-intensity aerobic exercise per week, plus resistance training 2 times per week

Sleep

- Aim for 7–9 hours of restful sleep each night

Manage stress

- Practice meditation, mindfulness, or other stress-reduction techniques



Dash Diet: Dietary Approach to Stop Hypertension

Based on these recommendations, the following table shows examples of daily and weekly servings that meet DASH eating plan targets for a [2,000-calorie-a-day](#) diet.

Food Group	Daily Servings
Grains	6–8
Meats, poultry, and fish	6 or less
Vegetables	4–5
Fruit	4–5
Low-fat or fat-free dairy products	2–3
Fats and oils	2–3
Sodium	2,300 mg*
	Weekly Servings
Nuts, seeds, dry beans, and peas	4–5
Sweets	5 or less

*1,500 milligrams (mg) sodium lowers blood pressure even further than 2,300 mg sodium daily.

DASH Eating Plan

The Benefits: Lowers blood pressure & LDL “bad” cholesterol.

 **Eat This**

 **Limit This**

	Vegetables		Fatty meats
	Fruits		Full-fat dairy
	Whole grains		Sugar sweetened beverages
	Fat-free or low-fat dairy		Sweets
	Fish		Sodium intake
	Poultry		
	Beans		
	Nuts & seeds		
	Vegetable oils		

www.nhlbi.nih.gov/DASH



AHA Guidelines for Exercise

- Aim for 150 minutes per week of moderate activity or 75 minutes per week of vigorous activity
- Exercise can be done all at one time or divided into several sessions throughout the day
- Women should engage in muscle strengthening activities at least two days per week

Mosca et al JACC 2011;57;1404-1423



Medications: Treatment of Hypertension

Thiazide Diuretics ("Water Pills")

How it works: Help your kidneys remove extra salt and water from your body. Less fluid in the bloodstream means less pressure inside your arteries.

Common examples: Hydrochlorothiazide (HCTZ), Chlorthalidone

ACE Inhibitors (Relaxes blood vessels)

How it works: They relax and widen your blood vessels by blocking a hormone called angiotensin that normally causes blood vessels to tighten.

Common examples: Lisinopril, Enalapril, Ramipril

ARBs (Angiotensin Receptor Blockers)

How it works: They relax blood vessels just like ACE inhibitors but work a little differently. They're often prescribed if someone develops the cough from an ACE inhibitor.

Common examples: Losartan, Valsartan, Olmesartan

Calcium Channel Blockers

How it works: They relax the muscles in your artery walls so blood vessels stay open and blood flows more easily. Some also help slow the heart rate.

Common examples: Amlodipine, Diltiazem, Verapamil





Top Takeaways

- Hypertension = High Blood Pressure
- Know your blood pressure readings
- Remember that hypertension is “the silent killer”. You may not have symptoms until you start to develop organ damage
- If you have hypertension, partner with your clinician to lower your blood pressure with lifestyle changes and medication if prescribed
- Exercise is important in preventing and treating hypertension
- Know what brings you peace, work on stress management
- Optimize your sleep



References

References

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- 2.Whelton PK, Carey RM, Aronow WS, et al. 2017 ACC/AHA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults.
- 3.American Heart Association. Understanding Blood Pressure Readings.
- 4.National Heart, Lung, and Blood Institute (NHLBI). DASH Eating Plan.
- 5.ValidateBP.org. Validated Blood Pressure Device Listing.
- 6.Mosca L, et al. Effectiveness-Based Guidelines for the Prevention of Cardiovascular Disease in Women. JACC. 2011. [\[Women and...on4 8 4 26 | PowerPoint\]](#)
- 7.WomenHeart: The National Coalition for Women with Heart Disease.