**Hypertension Protocol**

Measure blood pressure of **all adults** over 30 years of age

1. **Step 1**
   - If BP is high (SBP 140-159 or DBP 90-99 mmHg)
   - **Prescribe amlodipine 5 mg.**

2. **Step 2**
   - After 30 days, measure BP again. If still high:
   - **Increase to amlodipine 10 mg.**

3. **Step 3**
   - After 30 days, measure BP again. If still high:
   - **Add hydrochlorothiazide 12.5 mg.**

4. **Step 4**
   - After 30 days, measure BP again. If still high:
   - **Increase to hydrochlorothiazide 25 mg.**

5. **Step 5**
   - After 30 days, measure BP again. If still high:
   - **Add lisinopril 20 mg.**

6. **Step 6**
   - After 30 days measure BP again. If still high:
   - **Increase to lisinopril 40 mg.**

If overweight, lose weight.
- Eat 5 servings of fruits and vegetables per day.
- Eat nuts, legumes, whole grains and foods rich in potassium.
- Eat fish at least twice per week.
- Use healthy oils like sunflower, flax seed, soybean, peanut and olive.
- Limit red meat to once or twice per week.
- Avoid added sugar.

**Special populations**

- **Pregnant women and women who may become pregnant**
  - **DO NOT GIVE** lisinopril, enalapril nor hydrochlorothiazide to pregnant women nor to women of childbearing age who are not on effective contraception.

- **Diabetic patients**
  - Treat diabetes according to protocol.

- **Heart attack in last 3 years**
  - Add beta blocker to amlodipine with initial treatment.

- **Heart attack or stroke, ever**
  - Begin low-dose aspirin (75 mg) and statin.

- **People with high CVD risk (≥ 30%)**
  - Consider statin.

- **Chronic kidney disease**
  - ACE inhibitor or ARB preferred if close clinical and biochemical monitoring is possible.

**Advice for lifestyle modification**

- **Stop tobacco use,** and avoid second-hand smoke and harmful use of alcohol.
- **Increase physical activity to equivalent of brisk walk 150 min/week.**
- **Reduce salt to less than 1 tsp/day.**

If BP is high (SBP ≥ 180 mmHg or DBP ≥ 110 mmHg), refer patient to a specialist after starting treatment.

If BP 160-179 mmHg or DBP 100-109 mmHg, start treatment on the same day.

If SBP 140-159 mmHg or DBP 90-99 mmHg (elevated) and patient has two or more risk factors (family history of premature CVD, age >55 (men), age >65 (women), diabetes, high cholesterol, smoker, obesity) check BP again on a different day. If BP is still elevated, start amlodipine.

If SBP 140-159 mmHg or DBP 90-99 mmHg but patient has fewer than two risk factors, consider a three month trial of lifestyle changes before starting medications.

**CVD risk assessment should be done on all patients over 40 years of age.**

**Ethiopia**

**Federal Democratic Republic of Ethiopia**

**Ministry of Health**

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**Limit consumption of fried foods and foods with high amounts of saturated fats.**

- Avoid chips, margarines and other processed foods containing trans fat.

**Reduce fat intake by changing how you cook:**

- **Remove the fatty part of meat.**
- **Boil, steam or bake instead of frying.**
- **Limit reuse of oil for frying.**