

HYPERTENSION

(High Blood Pressure)



■ ■ ■ Description

Hypertension is a disease that can occur at any age. It is defined as an elevation in the pressure of the blood vessels of the body as blood moves through them. When athletes exercise, there is an increase in blood pressure, but it returns to normal when exercise is completed. When athletes have high blood pressure, the pressure is elevated at rest. The constant elevation of blood pressure puts increased strain on the heart, kidneys, and blood vessels and is associated with increased risk of conditions such as heart attacks, strokes, kidney disease, and peripheral vascular disease. In the majority of people (about 70%), the reason for hypertension is not determined and the elevation in blood pressure is called *essential hypertension*.

■ ■ ■ Common Signs and Symptoms

Hypertension does not usually cause symptoms in the early stages of the disease. It can, however, present as a sudden change in athletic performance, with increasing fatigue.

- Headache
- Nosebleeds
- Numbness and tingling of hands and feet (paresthesias)
- Shortness of breath
- Rapid heart rate felt in chest (palpitations)

■ ■ ■ Causes

- Anabolic steroid use
- Stimulants (caffeine, cocaine, Ma-huang, phenylpropanolamine, amphetamines)
- Obesity
- Kidney disease
- Diseases of the adrenal glands
- Excessive alcohol use
- Excessive salt intake
- Narrowing of the large blood vessels of the body (coarctation of the aorta)
- Diseases of blood vessels

■ ■ ■ Risk Increases With

- Obesity
- Lack of exercise
- Use of anabolic steroids
- Use of stimulants (cocaine, Ma-huang, amphetamines, ephedrine)
- High-sodium diet
- Excessive alcohol use
- Other members of your family having hypertension
- Age (especially older than 60)

■ ■ ■ Preventive Measures

- Hypertension cannot be prevented, only controlled.
- Good control of hypertension prevents complications and improves athletic performance.
- To prevent hypertension from getting out of control, athletes should do the following:
 - Avoid excessive alcohol intake.
 - Avoid excessive use of stimulants for weight loss, as decongestants, and for performance enhancement.
 - Be certain that intensive exercise does not worsen blood pressure.
 - Do not smoke.
 - Avoid isometric exercises.
 - Do not hold breath when lifting weights; exhale during the difficult part of the lift.

■ ■ ■ Expected Outcome

- Without appropriate treatment, hypertension can shorten the life span and reduce quality of life.
- With appropriate treatment, athletes can improve the quality of life and maintain their level of play.
- Life expectancy is normal or close to normal with good control of blood pressure.

■ ■ ■ Possible Complications

- Heart attack
- Stroke
- Kidney failure
- Congestive heart failure
- Poor tolerance of exercise

■ ■ ■ General Treatment Considerations

- Diagnostic tests may include an electrocardiogram (ECG), blood tests for diseases that cause hypertension, chest x-rays, and 24-hour monitoring of blood pressure to confirm readings. In some cases, studies to visualize the kidneys may be performed.
- Patients with hypertension are often put on a course of diet modifications (including reduced alcohol and salt intake), light exercise, and weight loss for a period of 3 to 6 months before medications are considered.
- Patients should stop smoking.
- Athletes should learn to monitor their own blood pressure.

■ ■ ■ Medications

- Medications can lower blood pressure when other measures fail.

- Athletes should know the side effects of the medications they take.
- Blood pressure medications affect athletic performance in different ways.

■ ■ ■ Activity

- There is good evidence that physical activity improves blood pressure control.
- Moderate exercise (brisk walking) may be optimal for control of hypertension.
- High-intensity exercise may increase resting blood pressure.
- Some physicians may want athletes to refrain from strength training until blood pressure is reduced.
- Circuit training has been shown to be safe for athletes with hypertension.

■ ■ ■ Diet

- Athletes should consider a low-salt diet but should watch for heat cramps with exercise.
- Athletes who are overweight should try to reduce weight.

■ ■ ■ Notify Our Office If

- Medications are poorly tolerated
- Athletic performance decreases suddenly or does not improve with treatment
- Chest pain, shortness of breath, or palpitations occur with exercise

Notes:

(Up to 4400 characters only)

Notes and suggestions