

## Hypertension Case Study

MSN

C.S. is a 40-year-old male who attends a community health screening. He states that he has not seen a health care provider in a “really long time.” He is a truck driver who eats mainly fast food while on the road. He smokes a pack of cigarettes a day “just for something to do during the long hours of driving and to keep me calm.” C.S. is 5 ft., 9 in tall and weighs 230 lb. His BP is 182/104, heart rate 90, respirations 24, and temperature 97.0°F.

1. What risks factors for hypertension does C.S. have?

I noticed several factors for C.S:

- No PCP
- Fast food diet (excess sodium)
- Sedentary lifestyle
- Stress
- Habitual Smoker
- Overweight

2. What clinical manifestations of hypertension would you assess for in C.S.?

Hypertension is known as the silent killer but may present it's self as:

- Palpations
- Fatigue
- Dizziness
- Angina
- Dyspnea

3. What complications will you assess C.S. for?

- Coronary artery disease
- Left Ventricle Hypertrophy
- Arteriosclerosis
- Heart failure
- Cerebrovascular disease

C.S. is referred to his health care provider to follow up on his high blood pressure screening.

4. What diagnostic studies might you expect the health care provider to order for C.S.?

I think that the health care provider for C.S will dive more into the lifestyle for C.S and evaluate how long he drives for, how many days a week, and hobbies besides work. They will most likely order a urinalysis, check BUN, and serum creatinine to see if the kidney's have been affected or if they are still functioning at a normal level. They'll also most likely order a Echocardiogram of ventricular hypertrophy is suspected. Most of the tests here will check how the hypertension is affecting the other body systems.

C.S.'s BP is monitored for several visits and remains elevated. His serum cholesterol, BUN, and creatinine levels are elevated. His creatinine clearance (glomerular filtration rate) is below normal, demonstrating renal insufficiency.

5. What type of lifestyle modifications would you recommend for C.S. to control his BP?

I would recommend C.S. to change to a low sodium, heart healthy diet which means avoiding as much fast food as possible. Fast food contains too much sodium which can lead to fluid retention and raise BP, the cholesterol can also lead to arteriosclerosis and may cause him to have a heart attack or stroke. C.S. should monitor the rest stops on his route and get out every two hours to stretch his legs, and briskly walk to promote blood flow, and help stray from his sedentary life style. When on route he should pack some healthier snacks like nuts, trail mix, granola bars, and fruit that does not need a refrigerator. These food items will keep him fuller for longer and allow him to pull off to a grocery store to get a healthier pre prepped meal. I'd also inform him to look for some larger truck rest stops as they can have healthy grab and good foods like sandwiches, veggies, salads, dairy products, cut fruit, and smoothies. C.S. also needs education on smoking cessation, smoking a pack a day will only make his hypertension worse and cause him to be at risk of even more illnesses. C.S. should have regular visits with his primary health care provider to keep tabs on his BP, he should measure it while on the road and make a log of it to show the health care provider on each visit.