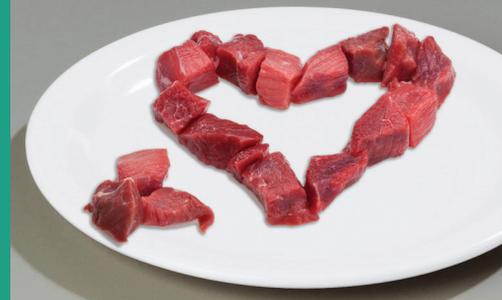


RED MEAT & NUTRITION

FOCUS ON NON-COMMUNICABLE DISEASES



Part 1:

Hypertension

Non-communicable diseases (NCD's) are the leading causes of mortality globally. In South Africa urbanization, industrialisation and economic transition of our population contributes to increased incidence of NCD's.¹ This NCD epidemic can be prevented through reduction of the underlying risk factors, early detection and timely treatments.

HYPERTENSION

Hypertension refers to a higher than normal force of blood against the artery walls as it circulates through the human body. As blood pressure rises, the risk for CVD and stroke increases. BP levels are measured as systolic (the pressure in the vessels when the heart beats, a normal reading being less than 120mmHg), and diastolic (the pressure in the vessels when the heart rests between beats, a normal reading being less than 80mmHg).

Enhancers & Inhibitors

- In 2008 NCD's accounted for 29% of all deaths in South Africa, 11% due to cardiovascular disease (CVD)²
- The incidence of hypertension is increasing in South Africa¹
- The South African Declaration for Prevention and Control of Non-communicable diseases committed to a set of 10 goals and targets to be achieved by 2020, these include:

"Reduce the prevalence of people with raised blood pressure by 20% by 2020 (through lifestyle and medication)"³
- NCD's are caused to a large extent by four behavioural risk factors. These are an unhealthy diet, insufficient physical activity, tobacco use, and the harmful use of alcohol

The South African Hypertension Guidelines³

- ✓ Maintain normal body weight (BMI: 18.5-24.9)
- ✓ Reduce dietary sodium intake to <2.4g sodium per day or 6g salt
- ✓ Limit alcohol consumption to no more than 2 standard drinks for men, and 1 standard drink for women
- ✓ Limit total fat intake to between 15% and 30% of total dietary energy, and reduce saturated- and trans fat intake
- ✓ Consume lean meat and low-fat dairy products, and include 2-3 fish dishes per week
- ✓ Increase fruits, vegetables, legumes, whole grains and nuts to 5 servings per day
- ✓ Reduce free sugars to less than 40g/day
- ✓ Engage regular physical activity for at least 30 minutes per day
- ✓ Stop smoking and avoid the intake of any Nicotine-based products, including snuff

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Sodium (Na) & Potassium (K)

- Dietary sodium (salt), often a hidden ingredient in foods, is associated with elevated blood pressure
- Daily salt intakes below 6g is recommended, however in South Africa it has been recorded at 7.8g/day in the black population, 8.5g/day in the coloured population and 9.5g/day in the white population⁴
- Potassium, in contrast, is an essential mineral required for heart function and maintenance of blood pressure, and adequate consumption of dietary potassium lowers the risk of hypertension and stroke⁵
- There is no recommended daily amount for potassium, yet intakes of 4000mg/day have been proposed. Eating a variety of foods is recommended and adequate quantity of potassium is found in vegetables and fruit, red meat and fish
- The best food choices for hypertension include foods high in potassium and low in sodium

Sodium and potassium content of selected South African foods (100g edible portion)^{6,7,8}

Food products	Na (mg)	K (mg)	
Meat & meat products	Lamb, trimmed (lean)	71*	288
	Mutton, trimmed (lean)	73*	272
	Beef, untrimmed	80*	282
	Chicken, white meat, roasted	48*	269
	Chicken, dark meat, roasted	73*	262
	Fish, hake, steamed	126*	361
	Egg, whole, boiled	126*	98
	Vienna	953	101
	Sausage, smoked, beef and pork	945	189
	Sausage roll, commercial, baked	1044	114
Dairy	Cheese, cheddar	487	82
	Milk, whole, fresh	48	157
	Vegetables & fruit	-	-
	Broccoli, boiled	4*	121
	Carrots, boiled	29*	156
	Apple	4	99
	Banana	41	206
Cereals	Bread, brown, fortified	648	227
	Bread, white, fortified	653	214
	Maize, soft, fortified	5*	24
	Rice, white	2*	39
Condiments	Gravy, brown, powder, prepared with water	417	22
	Tomato sauce	582	465
	Soup, powder, onion	8957	667

#Values are reported as per 100g edible portion, portion sizes usually consumed should also be considered when giving dietary advice. *No salt were added during cooking.

