Why offal organ meat SHOULDN'T BE "off" the table

Organ meats are not only considered to be an affordable meat option but are also nutritious and have high yield percentages as well as low cooking losses.

If you have ever enjoyed a steak-and-kidney pie, chances are that the thought of kidneys being offal meat didn’t bother you that much. There is, however, more to “leftover” meats than the occasional pie from your local grocer. In fact, South African animal meat organs are nutritious and affordable and should form part of our diets.

A study by researchers from the Institute of Food, Nutrition and Well-being at the University of Pretoria (co-funded by the National Research Foundation) examined the nutritional content of raw and cooked lamb and mutton hearts, livers, kidneys, tongues, spleens, stomachs and intestines and the potential contribution of these products to better, affordable nutrition in South Africa.

The organs were sourced from abattoirs in Gauteng. Each organ was cooked in its own small disposable aluminium oven pan, covered securely with aluminium foil, and cooked in its own liquids. For the raw nutritional analysis, all cartilage, excessive subcutaneous fat and inedible matter were removed.

Nutrient analysis

Nutrients generally lacking in South Africans’ diets are vitamin A, iron, zinc and B vitamins (Shisana et al, 2014). Meat consumption can aid in addressing some of these deficiencies, however, meat is also one of the most expensive items in the food basket.

A study done by Van Heerden and Morey (2014) found that some beef organ meats contained significant amounts of iron and zinc. With goats and sheep being such an integral part of smallholder farming systems, lamb and mutton organs can have a very positive influence on food security in the country.

All the cooked and raw mutton and lamb organs examined contained at least some amount of moisture, ash, protein, fat, calcium, phosphorous, magnesium, iron and zinc.

The highest nutrient values per 100g for protein, zinc and iron are as follows:

**Protein**
- In uncooked mutton organs, the livers (19.9g)
- In cooked mutton organs, the kidneys (32.7g)
- In uncooked lamb organs, the livers (18.5g)
- In cooked lamb organs, the spleens (29.5g)

**Zinc**
- In uncooked mutton organs, the livers (4.02mg)
- In cooked mutton organs, the kidneys (4.49mg)
- In uncooked lamb organs, the spleens (2.41mg)
- In cooked lamb organs, the livers (4.17g)

**Iron**
- In uncooked mutton organs, the spleens (97.4mg)
- In cooked mutton organs, the spleens (11.7mg)
- In uncooked lamb organs, the lungs (15.8mg)
- In cooked lamb organs, the spleens (22.8mg)

Thus, kidneys contained the most protein and zinc while spleens contained the most iron. The highest amount of phosphorous (423 mg/100g) was found in cooked lamb liver. The reported levels of manganese, potassium, sodium and calcium were low. The highest amount of calcium was found in cooked lamb stomachs (52.7mg/100g).

How much can organ meat contribute to your plate?

In the correct portion size, all lamb and mutton organ meats can make a significant nutritional contribution. The recommended portion size for meat according to the South African Food-Based Dietary Guidelines is 90g. On estimation, 90g of cooked mutton kidneys may contribute up to 52% of an adult’s daily protein allowance.

Organ meats are not only considered to be an affordable meat option, but it also has a high yield percentage (no bone and minimal cartilage means that there’s very little that can’t be consumed) as well as low cooking losses, hence there will be more of the product for you to enjoy on your plate.

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