

A C O M P A R I S O N O F S E L E C T E D N U T R I T I O N A L
P A R A M E T E R S B E T W E E N W I L D A N D D O M E S T I C M E A T S .

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Abstract

Many dietary factors, especially fat, are likely to influence the risk of cardiovascular disease by, amongst others, their effects on blood cholesterol concentration. The aim of this study was to analyse the lipid, energy and protein concentrations of local South African game in comparison to domestic meats. Fatty acid profiles were determined by chloroform-methanol extraction and gas chromatographic analysis. Total protein concentrations were determined by the Lowry Method. Energy analysis was performed using bomb calorimetry. Although no consistent, distinct differences between all the wild and domestic South African meats were found, individual differences were noted within and between species. Therefore, no general consumption recommendations can be made, but some wild meats appear to be more in line with general health recommendations than domestic meats.

Declaration

I declare that this dissertation is my own, unaided work. It is being submitted for the Degree of Master of Science in the University of the Witwatersrand, Johannesburg. It has not been submitted for any degree or examination in any other university.

Lauri-Beth Fine

(Signature of candidate)

_____ day of _____ 2008

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List of Abbreviations

TS: total saturated fatty acids

TM: total monounsaturated fatty acids

18:2: linoleic acid (18:2n6)

20:4: arachidonic acid (20:4n6)

22:4: adrenic acid (22:4n6)

22:5: gamma-docosapentaenoic acid (22:5n6)

TN6: total omega-6 fatty acids

18:3: alpha-linolenic acid (18:3n3)

20:5: eicosapentaenoic acid (20:5n3)

22:5: alpha-docosapentaenoic acid (22:5n3)

22:6: docosahexaenoic acid (22:6n3)

TN3: total omega-3 fatty acids

TP: total polyunsaturated fatty acids

Dry: lipid dry weight

S:P: saturated fatty acid to polyunsaturated fatty acid ratio

N6:N3: omega-6 fatty acid to omega-3 fatty acid ratio

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First mention of reference uses all author's names, subsequently only first author and *et al* is stated.

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