Upsizing Australia's waistline: the dangers of "meal deals"

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TO THE EDITOR: Over the past 20 years, the prevalence of obesity in the Australian population has more than doubled — from 8.1% in 1981 to 20.5% in 2000.[1,2] The rapid and widespread nature of the obesity epidemic suggests that environmental change is a major contributing factor.

The patterns and types of foods consumed by Australians have changed markedly within a single generation. One major area of change is the availability and consumption of "fast" foods.[3] A key feature of fast-food marketing is the use of "upsizing", a strategy designed to provide the consumer with a "value-for-money" addition to their meal. Upsizing is commonly employed within the context of "meal deals": complete meal options comprising the major food item (burger or chicken product) and, for a small extra cost, larger serving sizes of items such as hot chips and soft drink. Recent data from a US survey have shown that upsizing provides disproportionate increases in energy content relative to purchase cost.[4] However, no published data have demonstrated the impact of point-of-sale fast-food upsizing on total energy, fat and sugar availability for Australian fast-food meal-deal options.

On 28 July 2002, we purchased major meal deals and the advertised upsizing portions from the four major fast-food chains present in most large Australian cities: McDonald's, KFC, Red Rooster and Hungry Jack's. In order to assess six portions of each meal deal, we purchased two from each of three outlets. The weight and volume of chips and soft drink (non-diet variety) were measured, and nutrients were analysed using the AusNut and AusFoods Australian food databases.[5] A summary of our findings is presented in the Box. On average, a 12% increase in purchase cost increased energy availability by 23%, with a 25% increase in fat (10.3 g) and a 38% increase in sugars (18.8 g). The upsizing meal option providing the greatest energy gain was the "fillet burger combo" from KFC (50% increase in energy for a 16% increase in cost). Large meal deals provided on average 5733 kJ (35.4% energy from fat and 21.4% energy from sugar).

Based on data from the 1995 National Nutrition Survey, these single meal deals constitute 52% and 77% of the average daily energy intake of male and female Australians, respectively.[6]

Upsizing is a marketing strategy aimed at increasing the purchase cost of the items by providing the consumer with an added incentive or greater value. Using this strategy, upsizing meal deals double the energy gain relative to the additional cost. Importantly, upsizing also increases fat and sugar intake. With the growing disease burden of overweight and obesity on the Australian healthcare system, the public needs to be aware of the passive increase in energy consumption that can occur in pursuit of "value-for-money" eating options. Excess consumption of sugar and fat from fast-food meal choices adds mainly "empty calories" to the diet, with little nutritional gain and with a real risk of expanding the nation's waistline.

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4. From wallet to waistline: the hidden costs of super sizing. Washington, DC: National Alliance for Nutrition and Activity, June 2002. Available at <http://www.preventioninstitute.org/portionsizerept.html>. Accessed 8 November 2002.
5. Australian and New Zealand Food Authority. Available at <http://www.foodstandards.gov.au>. Accessed 8 November 2002.
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Percentage increase in cost, energy content, fat and sugars for various upsizing meal options from four major fast-food outlets

	Percentage increase			
	Cost	Energy content	Fat	Sugars
McDonald's				
Big Mac McValue meal (medium)*	10.1%	17.8%	16.2%	34.1%
Big Mac McValue meal (large)*	20.2%	39.5%	33.1%	80.7%
KFC				
Fillet burger combo (large)†	16.1%	50.3%	56.4%	52.7%
Red Rooster				
Chicken roll combo (large)†	16.6%	27.5%	22.0%	39.7%
Hungry Jack's				
Whopper value meal (large)†	9.2%	15.7%	14.4%	30.2%

*% Increase relative to "small" size. †% Increase relative to "regular" size.

"Chop-chop" tobacco smoking

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TO THE EDITOR: "Chop-chop" tobacco is illicit tobacco that has been grown and clandestinely distributed by farmers and wholesalers and sold on without government intervention or taxation. There is no quality control over this illicit substance, which may be adulterated or "bulked up". It is sold illegally "under the counter" by weight for rolled cigarettes by unscrupulous tobacconists and grocers. This type of tobacco, which has been roughly chopped up (hence "chop-chop"), is very cheap compared with legally produced manufactured cigarettes.

The prevalence of the use of chop-chop in the smoking community is unknown. However, the Australian Taxation Office (ATO) has a keen interest in the distribution of this substance, and estimates that many millions of dollars are lost in revenue from the illegal sale of chop-chop. Arrests and fines initiated by the ATO have so far occurred primarily in Queensland and Victoria.

Results of analysis of chop-chop vary from batch to batch, but samples have been shown to contain nicotine (Professor G Starmer, Department of Pharmacology, and Mr B Tattam, Mass Spectrometry Unit, Department of Pharmacy, University of Sydney, personal communication). It may also be fumigated with bleach and may be bulked up to add weight (M Rushton, ATO, personal communication). Although most people smoke it because it is cheap, many have misguided beliefs, for which there is no evidence, that it is "better" than other forms of tobacco.

A retrospective survey was carried out to assess the prevalence of and attitudes towards illicit tobacco smoking among patients attending the Smokers' Clinics of

Results of a survey of 44 consecutive patients attending the Smokers' Clinics of the Central Sydney Area Health Service

- 43% currently using "chop-chop"
- 84% smoke it because it is cheaper
- 58% believe it is better for you
- 74% believe it has no additives
- 16% believe it has no nicotine
- 63% know it is not legal

the Central Sydney Area Health Service (approved by the CSAHS Ethics Committee, June 2002). Patients were routinely asked the type of tobacco they smoked and their beliefs regarding this type of tobacco. The results are shown in the Box.

Many of the patients attending the Smokers' Clinics (dedicated exclusively to patients who smoke and have chronic obstructive pulmonary disease [COPD]) smoke this type of illegal tobacco. Several patients volunteered that smoking chop-chop precipitated an acute exacerbation of their COPD. Four patients have recently presented to a hospital emergency department for exacerbation of COPD after smoking chop-chop. Although smokers are loath to volunteer their use of this illegal tobacco, smokers and clinicians should be warned that smoking chop-chop does not constitute a positive health move, is not less harmful, and may be quite dangerous. Quitting smoking altogether is the best health move.

Competing interests: None identified. ❑

The altered whistle in tetanus

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TO THE EDITOR: These two cases, which occurred many years ago, illustrate a useful clinical sign in the diagnosis of tetanus.

An elderly man was admitted to hospital after crushing his finger in a stable door. He commented in passing that when he whistled across the park to his wife that morning, she had not heard him. However, she had heard him the previous two mornings. He was a professional whistler on the radio and, when asked, still appeared to produce a good strong whistle. As it is the high pitch that carries long distances, I pondered the causes of selective pitch loss. I suspected the "risus sardonicus" of tetanus. He was subsequently confirmed to have tetanus and survived.

Years later, a middle-aged woman with right hypochondral pain and presumed cholelithiasis presented to a country hospital for a cholecystogram. I chatted to her about her bandaged hand — she said that she had cut it on a jam tin in her house, but that her general practitioner was treating it, and all her vaccinations were up-to-date. Some hours later she complained that her abdominal pain was worse and had moved. I believed that the pain was probably related to movement of gallstones, but was more interested in her hand wound, of which she was dismissive. I asked her to whistle. It was a good whistle, but she commented, "It's not my whistle, I whistle the cows into the bales." Recalling my previous patient with the altered whistle, I diagnosed tetanus and arranged her urgent transfer to a consultant at Sydney Hospital (Sir Kenneth Noad). Indeed, she did have tetanus, and developed laryngeal spasm requiring emergency tracheotomy and 2.5 weeks in a respirator. Sir Kenneth later thanked me for saving the patient's life.

The alteration of a person's whistle in tetanus can be explained as an early effect of the increased tone in facial muscles, which causes the classic risus sardonicus. As tetanus toxin must travel from peripheral nerve terminals to the nerve-cell body in the brainstem or spinal cord to exert its effects, muscles of the jaw, face and head, with their shorter axonal pathways, are often involved before those of the trunk and extremities.[1]

1. Braunwald E, Hauser SL, Fauci AS, et al, editors. Harrison's principles of internal medicine. 15th ed. New York: McGraw-Hill, 2001. ❑

Anchoring an anaesthetist

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TO THE EDITOR: In general, it is unwise for the medical practitioner to stray from those fields in which he or she is trained. To illustrate this point, I report the case of an anaesthetist (me) caring for a patient undergoing general anaesthesia for open repair of a fractured ankle.

The operation was nearly over. The ankle had been repaired and the theatre nurse left the scene to assemble the materials needed for a leg cast. The patient was breathing spontaneously via a laryngeal mask airway. Before wound closure, the orthopaedic surgeon requested intraoperative radiography.

A large X-ray machine was wheeled into the theatre, and the radiographer positioned it over the patient, took several images and then left to process the films.

The surgeon wanted to resume surgery immediately, but who was going to remove the unattended x-ray machine, still poised directly over the operative field? I volunteered.

I hit a button on the panel. It manifested as the command for "reverse": accordingly, the machine backed itself into the wall of the operating theatre, trapping me in between.

www.toxinology.com

The Clinical Toxinology Resources website is now available at www.toxinology.com. It is a vast and growing searchable database, including 6000 images, designed to meet the needs of anyone seeking information on venomous and poisonous organisms throughout the world. Coverage is currently most complete for venomous snakes (over 800 species records); important spiders, scorpions, and marine organisms are detailed, and new records are being added weekly. In the next few months, nearly 2500 poisonous plant records will be added, along with records of poisonous mushrooms. There is also a list of antivenoms and antivenom producers worldwide. The recently updated *CSL antivenom handbook* is available in its entirety; further toxinology resource documents will be added in the future.

Access to the site is at two levels: a free general level or a more detailed subscription-based level aimed at health professionals. Subscribers can also log new cases using a secure system.

The site was developed by the Toxinology Department of the Women's and Children's Hospital, Adelaide, and the Department of Paediatrics at the University of Adelaide, with the assistance of a small grant and the goodwill and time of a number of experts from Australia and overseas. Subscriptions will be used to help meet the considerable costs of maintaining and extending the site. *MJA* readers are cordially invited to visit the site and to consider supporting this endeavour by subscribing.

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