

CURRENT ISSUES

THE INSIDE STORY



Detox And Cleansing Diets - Fact Or Fiction?

Consumers are paying closer attention to ways of improving their health and preventing disease (1,2). Almost 90 percent of Canadian adults identify nutrition as an important factor when choosing the foods they eat and 80% consider that food and proper nutrition play a major role in the maintenance and improvement of their health(3).

At the same time that interest in health is growing, so is the ease with which consumers can access health-related information to support self-care. A recent survey revealed that 46% of Canadians use the Internet to find food and nutrition information; 76% use magazines, newspapers and books; friends, relatives and colleagues are the source for 66% (4). In other words, many of the most common vehicles for obtaining food, nutrition and health-related information are not necessarily science-based.

One area of current popular interest where misinformation abounds is detoxification (detox) and cleansing diets and other procedures supposedly designed to rid the body of wastes. Dietitians are perceived by consumers as one of the most credible sources of nutrition information and are therefore in a position to help consumers sort fact from fiction on this topic (5).

This issue of *Current Issues* addresses the meaning of "detox" and cleansing regimens, the claims associated with their application and the evidence for their use.

Definitions:

- *Colonic cleansing or irrigation*, touted as a treatment for cleansing the colon, involves the insertion of a rubber tube through the rectum into the large intestine. A continuous forced flow of up to 20 gallons of warm water eventually causes the body to expel the contents of the colon with the water (6,7). Colonic cleansing has been legally approved by Health Canada for use before radiologic endoscopic examination. Various peer-reviewed scientific studies were also found exploring pre-operative colonic cleansing as a means to prepare patients for a medical examination of the colon (8). A meta analysis investigating the efficacy of such treatment, for other than medically necessary purposes, concluded that there are no benefits derived

from mechanical bowel cleansing; on the contrary, such a treatment may lead to further complications (8,9). Medical doctors do not recommend colon cleansing unless it is performed by a physician in preparation for a medical examination of the colon (9).

Because colonic cleansing is mostly performed by product promoters (and the public themselves) and not by health care professionals (except in medically prescribed circumstances), there are no regulations directly requiring education to prevent large colon perforation or preventing the use of materials that are harmful or not sterilized. Large colon perforation has occurred during colonic cleansing leading to illness, hospitalization and even eventual death (6). Despite legal action filed on behalf of the individuals affected, the practice persists (6,10).

- *Detox and Cleansing Diets*: No clinical description or definition of the terms detoxification nor cleansing diets exists in the manuals of clinical practice. Popular websites promoting cleansing and detox treatment vary in their recommendations but share a common premise -a fasting regime or elimination of various foods for a number of days is followed by either a rigid diet or ingestion of herbal laxatives or tablets that induce diarrhea supposedly in an effort to rid the colon and intestinal tract of harmful toxins. In some cases the colon is cleansed by colonic irrigation. These techniques are said to be designed to rid the body, intestine and liver of unwanted toxins.

Regulation of Detox and Cleansing Diets

To date, these diets or regimes are not regulated in Canada. The Health Products and Food Branch of Health Canada has signed a trilateral cooperation charter with The Food and Drug Administration Department of Health and Human Services in the United States and The Federal Commission for the Protection from Sanitary Risk Secretaria de Salud in Mexico to combat health fraud and misleading nutrition advertising (11). The group is working on establishing an infrastructure to tackle; "false, deceptive, or misleading promoting, advertisement, distribution, sale, or offering for sale of products or provision of services, intended for human use, that are represented as being safe and/or to diagnose, prevent, cure, treat or mitigate disease (or other conditions), to rehabilitate patients or to provide a beneficial effect on health" (11).

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Claims of Detox and Cleansing Diets

A search on the Internet using the terms “detox diets and cleansing diets” revealed over 1000 (22 were examined) websites claiming the following: effective weight loss; ridding the body of harmful waste and toxins; cleaning a “dirty” digestive tract; “cleaning out” the major organs such as the liver, gall bladder or large intestine; and promoting complete exclusion of wheat, dairy, sugar, caffeine and alcohol, or any other foodstuff touted as inherently toxic (12-14). Marketers of detox and cleansing diets thus proclaim the vital importance of detoxifying the body by cleansing the body organs and/or colon which have inevitably become impacted with poisonous substances. They further claim that these blockages prevent the large intestine from absorbing important nutrients even as toxins are re-absorbed by the body.

Additional non-scientific claims target popular fears alleging that harmful substances are contained in regular food and speculating that these might induce such deleterious health effects as cancer, cardiovascular disease, arthritis, allergies and obesity (12-17). The majority of these purveyors make direct unfounded statements such as “enhancing serious weight loss”, “curb hunger”, “get rid of toxins making you store fat” “get rid of cellulite with the fat flush”, “all natural weight loss product”, “get rid of body odor and bad breath”, “re-energize”, and “unfreezing the digestive system”.

These claims are baseless as demonstrated by Alvarez and Donaldson who conducted separate studies demonstrating that headaches, fatigue, and loss of appetite were actually caused by mechanical distention of the colon rather than by absorption of toxins despite the contrary claims of detox diet marketers and sellers (18,19).

Although the treatments that were examined, varied in duration and type, they generally lasted 7 to 21 days and were recommended to be taken as often as once a month. Prices for these treatment ranged widely from \$19.95 to \$350.00 for tablets and powders to over \$1,000.00 for colonic irrigation.

What is The Evidence on Detox and Cleansing Diets?

Although coverage of detox and cleansing diets persists in the popular media, a dearth of scientific studies exists investigating their efficacy or safety (20). A broad search of scientific literature yielded few results directly relating to the investigation of these diets.

There are no scientific studies supporting the claims made by the detox and cleansing diets. What is clearly demonstrable is the financial gain to be made by promoters of these diet regimes from the sale of books, tablets and systems. Promoting for financial gain a health remedy that is known to have no proven scientific efficacy is fraudulent (1). While the harms might appear minimal in the short term, the losses go beyond wasted consumer dollars and include mild to severe deleterious effects such as malnutrition (21). To add to the vitamin and mineral deficiencies that may result from prolonged and intermittent fasting there is also the likelihood of diarrhea, headaches, dehydration, electrolyte imbalance and even large intestine perforation (21). Long term reliance on non-scientifically proven diets might also lead individuals to neglect seeking proper health care (1,6,12,21).

The Best Body Cleanse:

Scientifically it is well founded that humans are fully equipped with the best detoxification system. Our body draws nutrients from the foods we eat, and excretes wastes not needed (22-26). Primary organs work together in waste removal. The liver removes waste from the bloodstream and prepares it to be sent to the kidneys for disposal in the urine. The large intestine in particular does not need internal cleansing as it works well at reabsorbing water and minerals as it passes wastes (22-26). Thus the notion of internal cleansing by taking pills or potions or physical cleansing is not only scientifically unfounded but also physiologically unwarranted.

The Bottom Line

- Benefits assigned to detox and cleansing diets are void of scientific evidence.
- A well established body of scientific knowledge exists on the physiology of humans and their ability to excrete waste(s) through primary organs (22-26).
- Colonic irrigation when not performed by a physician can be dangerous and in some cases has led to death (6,10).
- Registered Dietitians are in a good position to inform consumers on how to obtain accurate nutrition information and to educate consumers regarding the controversy of using detox and cleansing diets.

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- Dietitians can further help to identify suspicious practices by reporting them through the appropriate channels.

Or by contacting:

National Capital Region Consumer Product Safety Office
Product Safety Program
Health Canada
MacDonald Building
123 Slater Street, 4th Floor A.L. 3504D
Ottawa, Ontario
K1A 0K9

Telephone: (613) 952-1014
Toll-free: 1-866-662-0666 (calls will be routed to closest regional office)
E-mail: CPS-SPC@hc-sc.gc.ca

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