Yogurt, Weight and Curves

Overweight and obesity are vital, global, public health issues. According to the World Health Organization, obesity has more than doubled worldwide since 1980, and in 2014, 39% of adults were overweight and 13% were obese (Figures 1 and 2) [1].

Obesity not only has serious implications for individuals’ health and well-being (Figure 3), but for health services and the wider economy.

So, why do we have an obesity crisis? Is it a simple case of us eating more and moving less?

Changes in eating habits and physical activity patterns, as a result of wider environmental and societal changes have been proposed as key factors behind the obesity epidemic. We appear to be eating more foods that are lower in nutrient density and higher in energy density, our portion sizes have grown, and we’re increasingly eating outside the home - which often means exposure to higher calorie foods [2,3]. The displacement of nutrient-rich foods and drinks with nutrient-poor items may be influencing childhood obesity, which in turn impacts adulthood obesity [4-6]. Add to this the fact that we’re working in a more sedentary capacity and we begin to see a pattern of association between the rise in obesity and lifestyle changes.

Obesity is complex, but in our food-filled environment, any eating pattern that can give weight management a helping hand could be beneficial for people of all ages. For example, eating more yogurt, nuts, fruit, whole grains or vegetables was associated with gaining less weight over a 4-year period amongst 120,000 adults followed up for more than 16 years – with the association being strongest for yogurt (0.82 lb less weight gain for each additional serving per day) [7].

This Digest will focus on the potential beneficial role regular yogurt consumption may play in weight management, and provide tips and tricks on how to include yogurt in a balanced weight management plan.
Yogurt and Weight – The Evidence

There is a wide-ranging body of scientific evidence suggesting a beneficial relationship between a regular intake of dairy foods and weight, as well as body fat (6, 9). A systematic review of 22 studies suggested that yogurt consumption is associated with lower Body Mass Index (BMI), lower body weight and weight gain, smaller waist circumference and lower body fat (10).

Can yogurt reduce your chances of being overweight?

Six cross-sectional studies have examined the relationship between yogurt and BMI. Five found a beneficial association (yogurt consumers had a significantly lower BMI than non-consumers) in females only for two of these studies (11, 12), and in both genders for three studies (13-15), while one showed no effect of yogurt on BMI (16).

In addition, in one of these studies (13), it was found that people who ate more than three servings of yogurt a week gained about 55% less weight over a year compared to those who ate less than one serving per week. When it came to waist size, higher yogurt consumers gained 20% less than lower yogurt consumers.

A Mediterranean cohort study found that high yogurt consumption (seven or more servings per week) at baseline was associated with a 20% lower risk of overweight or obesity after 6 years. This inverse association was stronger if consumption was coupled with high fruit intake (32% risk reduction) (17).

The CARDIA study (a prospective cohort study amongst a large group of young adults) showed that total dairy intake significantly reduced the risk of overweight people becoming obese. However, there was no significant association between yogurt intake per se (18).

Can yogurt give you curves in the right places?

A large Spanish cohort study found that whole fat yogurt consumption (7 or more servings per week) was associated with a 15% reduced risk of developing central adiposity (waist circumference ≥102 cm in males and ≥88 cm in females) (19).

Two other cohort studies provide evidence for a negative association between yogurt consumption and waist circumference in overweight people over a follow-up period of 6 or 12.9 years (11, 30).

A significant negative association between yogurt consumption and waist circumference for both sexes has also been reported by three cross-sectional studies (14, 16, 21). And, in a study of Canadian adults, yogurt consumption was associated with lower body weight, waist to hip ratio, waist circumference and tended to be associated with a lower BMI (22).

Yogurt consumption and weight and fat loss

There is only a very small amount of evidence relating to yogurt consumption and weight and fat loss.

A randomised controlled trial (RCT) by Zemel and colleagues (23) indicated that when yogurt is part of an energy-restricted diet for overweight/obese people, yogurt supplementation can help to significantly reduce body weight compared to a placebo control (sugar-free gelatine dessert) over 12 weeks. However, two other RCTs found no weight loss differences between yogurt and control groups (24, 25).
In practice...

Yogurt has been shown to have a positive impact on weight management, and it is a nutrient dense food. So, what could be the key mechanisms for this effect, and how can we help people achieve a healthy weight as part of an overall balanced mindset and lifestyle?

**Three Yogurt Weight Management Facts**

There are a number of theories about how yogurt may effect body fat and give a helping hand to weight management:

1. Yogurt is a good source of calcium and protein, containing more than an equivalent volume of milk. Several studies have shown that dietary calcium can bind fat and decrease its absorption from the intestinal tract (26). Calcium and dietary proteins such as whey and casein proteins, peptides and amino acids such as leucine may facilitate loss of weight and fat mass. For example, adequate calcium intake decreases levels of calcitriol, a calcium-regulating hormone, leading to decreases in intracellular calcium and less fat being stored in adipocytes which may result in weight loss (27, 28).

2. Yogurt as a fermented food that can contain live and active cultures may be able to change colonic bacteria that might influence weight gain (4, 29).

3. Yogurt, especially protein-rich yogurt, has a potential role in promoting satiety. Studies suggest that protein enhances satiety and satiation and can lead to a reduction in appetite (Digest 2).

It is also possible that people who increase or decrease their yogurt consumption may have other linked weight-influencing behaviours that have not as yet been measured or identified in reported studies (7).

**Science to spoon**

A successful weight management plan can be built around a range of healthy foods, incorporating a realistic physical activity plan, behaviour-change techniques and support. Ideally, a programme should be managed within a multi-disciplinary team of experts with an aim to achieve and keep to a healthy weight as part of a long-term lifestyle change.

At the end of this Digest, you’ll see a hand-out for your patients and clients: examples of mindful eating techniques, healthy eating tips and menu suggestions for incorporating dairy foods (including yogurt) into a balanced meal plan.
Eating Mindfully

Your mind-set can make or break your healthy weight goals. We eat for many different reasons, for example, in response to emotions, the sight of food, social situations, boredom, habit and hunger. Here are some suggestions that could help you get your brain in gear.

• Make conscious choices
  Always try to stop, think, and make a conscious choice before you eat. Really choosing whether you eat something, or not, not only keeps you focused but can stop you feeling deprived. Keeping a food diary can help you to make conscious choices, as you’re more aware of what you’re eating and when.

• Follow an eating plan
  See the menu on Figure 6 as an example of a structured menu plan.
  Decide on the times that you will have each meal, and when you will eat 2-3 wise, planned snacks, such as fruit, yogurt, handful of nuts, over the day. If you think you feel hungry, drink some water, and try to wait until the next planned time to eat, and distract yourself by doing something else. This is a good way to tell the difference between real hunger and other triggers for eating. You will often find that the urge to eat has passed.

• Choose satisfying foods
  Foods that have a low energy density (foods that are lower in calories compared to other foods of the same weight) may help you to feel fuller for longer and, in turn, help you eat more mindfully and stay on track. These tend to be foods that give you protein and/or bulky fibre, for example, yogurt, fruit, vegetables, pulses, seafood and soup. Further, emerging research seems to suggest that full fat dairy products may be beneficial in weight management (30).

• Beware ‘all or nothing’ thinking
  If you can’t fend off a craving or snack attack, you haven’t ‘failed’ or ‘ruined everything’. Instead, see it as a learning experience. Plan how you might deal with it differently next time, forgive yourself and move on. Don’t let lapses push you off course. Ups and downs like these are normal. Enlisting support from a friend, partner, healthcare professional, group or on-line community can help too.

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**Figure 5: Time to eat mindfully.**
IN CONCLUSION...

There is a large body of data that relates dairy intake to weight management. There is also evidence to suggest that yogurt consumption is associated with lower BMI, lower body weight and weight gain, smaller waist circumference and lower body fat in a mix of healthy weight, overweight and obese people, and in the general population.

While the data suggests a role for yogurt in weight management, a cause/effect relationship cannot be determined. In other words, little is yet known about the specific role that yogurt might play and whether any beneficial effects of yogurt are unique to its specific composition or simply due to the fact that it is a dairy food. Further well-designed randomised controlled trials are required.

Meanwhile, uncertainty about any specific weight benefits of yogurt should not influence people’s decision to include yogurt as part of a healthy diet and active lifestyle. It is a convenient, good-tasting, nutrient-dense and lower-calorie food that can help people worldwide meet healthy eating and weight management guidelines.

Practical methods to help people eat and more consciously can be an aid to successful weight management and can be used in combination with a realistic physical activity plan.
Menu Ideas and Tips

Eating for a healthy weight needn't be about counting calories; check out these practical hints and tips to help you enjoy a wide range of tasty foods, including yogurt, whilst keeping a watchful eye on your weight.

**Five foodie tips**

1. **Eat regular meals, especially breakfast.** Missing meals can make you give in to temptation and you might reach for unhealthy snacks that don't offer you nutrients or a feeling of fullness.

2. **Fill up on fibre.** Fruit and vegetables are typically low in calories, high in fibre and low in fat – they also provide essential nutrients for health, and are low in energy density (calories per bite!). Aim for at least five servings of fruit and veg a day. High fibre foods help promote satiety – whole grains like oats, brown rice, pasta and bulgur wheat; and vegetables such as beans and pulses.

3. **Cut down on unwanted fat,** for example by avoiding fried foods, choosing lean cuts of meat and lower fat cooking methods like grilling and steaming. As a general rule, choose high protein lower fat dairy foods to help fill you up and provide essential nutrients including calcium and phosphorus. Lower fat dairy foods still have the same amount of calcium as full fat varieties. Aim for 3 servings of lower fat dairy a day (3-4 dairy servings seem to be the usual amount used in RCTs) (Figure 6).

4. **Keep to within the recommended alcohol limits** and ideally have no more than one unit of alcohol a day to keep your calorie intake down.

5. **Watch portion sizes** – using a smaller plate and checking recommended portion sizes on packaged foods helps.

**Breakfast choices**

- Semi-skinned or skimmed milk on breakfast cereal or as a hot drink in latte – choose whole grain lower sugar cereal
- YOGURT with lower sugar granola, or on whole grain breakfast cereal, or with fruits, nuts and seeds
- Low fat soft cheese with smoked salmon on a bagel

**Lunch**

- Flatbread with falafel or lean grilled kebabs and YOGURT, cucumber and mint tzaziki
- Sandwich lunch followed by YOGURT – check the label and choose lower sugar higher protein variety
- Grated cheese salad or baked potato with reduced calorie coleslaw and grated cheese – buying extra mature cheese helps you use less as it has a stronger flavour

**In between meals**

- Skinny latte
- Low fat fruit YOGURT – higher protein varieties will help to fill you up

**Dinner ideas**

- Chicken korma, chicken in cream sauce, beef Stroganoff type recipes using low fat plain YOGURT in place of cream
- Dhal, basmati rice, salad and mint and cumin YOGURT raita
- Main meal followed by YOGURT with sliced apple and honey

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Figure 6: Menu ideas.