

Foodie Facts on Fuelling Tom Smitheringale in his one man epic journey to the North Pole 2010

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I often get asked about Tom's nutrition for his solo and unsupported 800km trek to the North Pole which he attempted in February to April 2010. Here are some of the foodie facts I've compiled on Tom's daily food intake while he was on the ice;

1. Each of the 5 meals vary between ~7100 and 11000 kJ. The average daily intake for an adult is 8700kJ. This means every meal or snack Tom eats is equivalent to an average adult's total DAILY intake.
2. Tom aims to eat 40,700 to 42,500 kJ DAILY to assist with meeting his huge energy requirements.

Why so much? The process to developing Tom's Fuelling Plan

3. Special testing by our teams Exercise Physiologist estimated Tom's Basal Metabolic Rate (BMR) is ~9000kJ daily.
4. They also estimated with the type of exercise Tom would be doing and, dependant on the length of time each day, Tom would burn ~18,800kJ to 35,250 kJ while on the ice DAILY.
5. To ensure Tom met these daily energy needs (without taking into consideration any other factors such as the cold, illness or stress, we needed to make sure he was fuelled with ~40,000kJ daily BUT
6. Tom's daily food packs had to be limited to ~1.2 kg so that overall his total food weight on his sled was ~85kg. Not an easy task to fit so many kJ into very little kg!
7. Plus we wanted to ensure Tom received optimum nutrition for daily recovery, preventing and repairing muscle damage, preventing or aiming for minimal weight loss and optimum concentration levels!
8. Prior to Tom leaving, from June 2009 to January 2010 we worked on "fattening" Tom up with regular monitoring of weight, skinfold assessment and gradual buildup of kj from a baseline of ~17,000kJ daily. Tom gained ~11kg in this time with at least half estimated to be added fat mass.

9. We developed a daily menu of foods that were light in weight, energy dense and primarily were high in fat (as, per gram, fat is TWICE as energy dense as carbohydrates or protein) and carbohydrates (essential for fuelling Tom's muscle and brain). Through the sheer amount of food, protein requirements were still met even though most foods were low in protein.

10. Tom had two different "menus".

a. Pack A, of which he has ~45, each providing ~40,700kJ and weighing 1267g.

b. Pack B, of which he has ~25, each providing ~42,500 kJ and weighing 1363g.

In reality the packs were modified further to make weight so were probably less kJ than what we estimated.

Tom and I caught up after his trek and discussed what worked well and what needed to be scrapped for future adventures. If you're interested and want to know more - visit www.onemanepic.com and become a fan of onemanepic.

Simone Allen

Sports Dietitian



catching up with Tom at nutrition works, Challenge Stadium