

Health Spotlight

Vitamins at work

In the modern world we are familiar with the idea that one aspect of a healthy diet is the need for sufficient vitamins.

Even if we know nothing about the science, most of us know vitamins are found in fruit and vegetables, reports Dr Dan Hegarty of Express Medicals. If we do not have enough vitamins then we might get sick and this will clearly prevent us from functioning properly at work.

There are many well documented examples of the importance of vitamin deficiency from naval history. During the American War of Independence the problem of scurvy, caused by vitamin C deficiency, undermined Admiral Sir Francis Geary's Channel Fleet. The fleet suffered 2,400 cases of scurvy within 6 weeks.

Indeed, the only ship to escape scurvy was the flagship whose crew benefited from a plentiful supply of molasses. By 1782 there were 23,000 sailors, out of a total of 100,000, blighted by scurvy. It could be argued that the American colonies were lost to the British Navy because of the debilitating impact of scurvy.

The introduction of lemon juice to the diets of sailors in 1795 was one of the most im-

portant advances in naval history. Lemon juice is rich in vitamin C and so helped protect sailors from becoming ill with scurvy. Admiral Nelson purchased 50,000 gallons of lemon juice from Sicily at a cost of one shilling per gallon. The consequent dietary improvement was a main contributor to Nelson's victory over Napoleon.

In 1753 James Lind, a Scottish naval surgeon, published 'A treatise of the scurvy.' In this he demonstrated that sailors receiving lemon juice recovered from scurvy. The significance of vitamin C was emphasised by the retrograde step of substituting lime juice for lemon juice. This is because lime juice contains only 50% of the vitamin C levels compared to lemon juice.

It was in 1845 that the Governor of Bermuda persuaded the British admiralty to switch to West Indian lime juice with a subsequent, and tragic, resurgence of scurvy.

Another example of a disease caused by a vitamin deficiency is beriberi which is the consequence of reduced levels of thiamine/vit. B1. It is characterised by muscle wasting and paralysis. It occurred in sailors' diets made up largely of polished rice.



In 1882 Admiral Takaki, a physician in the Japanese navy, demonstrated that sailors recovered from beriberi if their diets were improved by adding plenty of vegetables, fish, meat and barley.

It became increasingly apparent that sailors' health, and thus the efficiency of whole ships and fleets, had a direct effect on the outcome of naval warfare.

In 1912 Casimir Funk, a Polish biochemist, wrote, 'The Etiology of the deficiency diseases,' in which he looked at illnesses caused by deficiencies such as scurvy, beriberi and pellagra. Funk placed them under a single group which he named 'the vitamin deficiencies.'

The next great step forwards in the vitamin story was provided by McCullum and Davis in 1915. They established that

Funk's vitamins fell into two distinct groups, one being fat-soluble and the other water-soluble. These were categorised as fat-soluble A and water-soluble B vitamins.

Nutritional science has since identified a whole list of illnesses that result from vitamin deficiencies and good nutrition is now a cornerstone of the basic preparations of a modern ship's company. Nowadays consuming lots of fruit and vegetables is accepted as an imperative of good health.

Naval historians, in collaboration with nutritional scientists, now realise that the course of naval history has been significantly affected by vitamin deficiencies. Moving forward to the modern workplace, it is easy to understand that a nutritionally healthy workforce is a more productive and safer one.

'Lady in red'

Although it wasn't her wedding day Virgin Trains customer service assistant, Leanne Hackney, took a break recently from her normal duties to model a wedding dress with a difference.

Leanne, who works at Manchester Piccadilly, wore a wed-

ding dress made of redundant day Virgin Trains customer service uniforms. The clothes were to be discarded but sentimental seamstresses made up a wedding dress to help honour the Royal Wedding. The idea is to emphasise rail's green credentials, even when wearing a red dress.



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LUL midfielder

A former London Underground worker turned professional footballer appeared for Brentford in the Football Leagues JP Trophy cup final on 3rd April.

The one time cable engineer, Sam Saunders, once worked on lines deep under Wembley Stadium where he played against Carlisle United. Despite Sam's best efforts Carlisle won

1-0 over Brentford.

'It was money and gave me the opportunity to go out and play,' says Saunders of his railway career. He had to take a pay cut to get back into football when he joined Dagenham in 2006. 'I've been in full-time football for five years now. I enjoy every second of it and don't want it to stop.'

Boiler test

The A1 Steam Locomotive Trust reports that Tornado's boiler has passed its hydraulic test at DB Meiningen, Germany at 375psi - pounds per square inch.

The boiler will shortly be dispatched to the National Railway Museum, York, where commissioning and re-assembly of the locomotive will take place. Tornado's first main line rail tour will be 'The Cathedral's Express' from London to Bath and Bristol in May.



Railsport Round Up



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It looks like being a busy year for the Railsport Games as interest in sports generally ramps up ahead of next year's London Olympics.

The 18th Railsport Games will be held in Blackpool, on Saturday 11th and Sunday 12th June. Says Cliff Robinson, organiser of Railsport GB, 'It is getting better and bigger and represents a great chance for the rail industry to come together.

'We have several other events like cycling and angling coming up as well as a range of

sports that will take us abroad. We are hoping for a really good turnout at this year's Games. The Games Entry form, and forms for each of the sports, are available to download in Adobe pdf format at our web site, www.railsport.org.uk.'

The Railsport Cycling Championship takes place at Castlemorton in Worcestershire on Sunday 3 July 2011. It's a road race and Railsport will be taking part in the Steve Taylor Memorial Road Race which is a British Cycling event. Entry to Railsport Riders can only

be guaranteed if forms are received by the closing date of 28th May 2011.

'We anticipate this race will be fully subscribed with local riders, so any entries received after this time risk not being able to get in the event,' says Cliff.

The annual Railsport Angling Championships will take place at Makin Fisheries, Wolvey, on 17th August 2011. A poster and entry forms can be downloaded at the web site www.railsport.org.uk