It is amazing how an ever-increasing life expectancy has crept up on society to the extent that people consider that these days, it’s not enough just to make 100. We have always been fascinated by extreme old age from bible stories to Swift’s Gulliver’s Travels, but there is now a real very select club in the making – the supercentenarians. The term applies to anyone older than 110 and there are 78 supercentenarians, 71 females and 7 males, in the world today, according to the US Gerontology Research Group. Recently, the world’s oldest living person and one of the UK’s oldest people died, but what kept them and others alive so long remains a mystery. The promise of immortality is difficult to resist but if one reviews the various so-called reasons for longevity, things may not look so attractive. A Dutch lady who died at the age of 115, attributed her longevity to a diet of pickled herring; the oldest person ever, Jeanne Louise Calment who died aged 122, suggested a glass of port per day, whereas another lady from Belarus relied on a diet of gherkins, pork fat and vodka. A Japanese gentleman who lived to 116, recommended green tea and herb wine whereas Lucy d’Abreu, aged 113 always finished the day with a brandy and ginger ale. At one time, individuals held the title of the world’s oldest person for some years, but as there are so many of these oldest old, it is now only a matter of months and an adviser to the Guinness World Records has suggested that it may not be included in future editions of their publication. What is also fascinating with this group of people are the events that they have experienced during their lifetime. These people have experienced two world wars, space travel, computers and the advances in medicine from drug development to gene manipulation, to mention but a few. As a footnote, it has been recently reported that the oldest donor in the UK was a 103-year old woman who donated her corneas to two people, successfully restoring their vision.

We are all intrigued by the prospect of extending our life span but we would wish it to be healthy. Dr Stone of the University of Sheffield states that there are essentially three ways to ensure a longer life-span: genetic intervention, but researchers have not quite achieved that understanding yet; selective breeding, but that is a very long-term option; calorific restriction, so that one reduces calorie intake by a half but maintains the essential components. The last will almost certainly have the desired effect but one of the key observations from research regarding quality of life issues in older adults, has found that being able to eat and enjoy one’s food is an essential part of daily living. As Dr Stone reiterates ‘a sure fire way to increase lifespan but a miserable way to live’.

However, no one knows why a small number of individuals live to such extreme ages and there is a debate as to whether there is anything really ‘special’ about this group of people. What is a fact is that more and more people are reaching 100 years of age – in the UK, there are about 6,000. Professor Kirkwood, University of Newcastle has pointed out that long life has been around for some time but that the records are usually unreliable. It is known, for instance, that people living into their 80s and 90s was not unusual in the Greek civilisation. Unfortunately, most people did not achieve this with the average life span being just 22 in Roman times. By the 1800s it had reached about 40, by 1900s the upper 40s, whereas today it is in the middle to late 70s. It is believed that around 120 is the upper limit beyond which the human body cannot survive without significant genetic intervention. The advice at present is to eat healthily, exercise sensibly, don’t smoke, take alcohol in only reasonable amounts, and remain socially active. Genetic makeup and background also helps but that is only about 15% of the story.

A gene variation that helps people live to a ripe old age also appears to preserve memory and thinking power. These are the conclusions of a study carried out on nearly 300 Ashkenazi Jews aged 70 and over by Dr Barzilla of the Institute for Aging Research at Albert Einstein College of Medicine in New York. It appears that this gene alters the size of fatty cholesterol structures in the blood, making them larger than normal and therefore stops them building up in blood vessels. Those that possessed the ‘longevity gene’ were twice as likely to have good brain function as those who did not have the gene variant and performance in memory and concentration tests were far superior. Also, those who reached the age of 100 years were three times more likely to have the ‘longevity gene’ variation than their 70 year old counterparts. It is suggested that it also has a favourable effect on the vascular integrity of the ageing brain and the brain tissue itself and might also protect against Alzheimer’s disease and other dementias. In addition, diet may also affect the onset of Alzheimer’s disease as...
reported by the Proceedings of the National Academy of Sciences. Scientists from Los Angeles have identified bisdimethoxycurcumin, a chemical in curry as the substance that may be responsible.

Apparently grumpy old people ‘can’t help it’ as age appears to affect their sense of humour. Professor Carpenter at Washington University found that older people find it harder to understand jokes when compared to a younger group. Choosing the punchline for jokes or completing cartoon strips, undergraduates were 6% and 14% better, respectively. The report suggests that age-related declines in short-term memory, cognitive reasoning and moving between different thought processes may affect the comprehension of humour in older people. Earlier research among stroke patients showed that people with damage to their brain’s right frontal lobe also lose their sense of humour. A cognitive neuropsychologist thought it was entirely possible that people’s understanding of jokes could change with age, but an important caveat to any study such as this was whether the humour used was appropriate to the age group as modern jokes might not be appreciated by older people. That being said, having a sense of humour is important to health because laughter can maintain well being and boost social interactions.

Continuing in the same vein, researchers from the University of Maryland School of Medicine have shown that watching a stressful film caused the blood flow to slow by about 35%, whereas a funny film increased it by around 22%. They suggested that laughter caused the tissue that forms the endothelium, the inner lining of blood vessels to expand in order to increase blood flow. The endothelium is known to have a substantial effect on blood vessel tone and regulates blood flow, adjusts coagulation and secretes various substances in response to wounds, infections or irritation. It also has a significant role in cardiovascular disease and its impairment is an early sign of potential problems. They suggest that given the results of their study, laughing may be important in maintaining a healthy endothelium or may offset the impact of mental stress. Their ideal solution for the cardiovascular system is 30 minutes of exercise three times per week and 15 minutes of laughter on a daily basis. Professor Steptoe, British Heart Foundation Professor of Psychology was not surprised at the results as associations have been shown between positive emotional states, such as happiness, and low levels of the stress hormone cortisol. Also people with a more positive outlook appear to be less affected by stressful events but we have yet to understand the biological processes involved. Unfortunately, there is always a downside as more than half of the people with asthma have reported that their symptoms can be brought on by laughter. Although it has not been recognised before as a trigger such as pollen, fumes and dust mites, there is the suggestion by asthma researchers that such a flare up could be an early indication that their condition is not well controlled.

There has been renewed interest in personality types and disease following on from studies in the 1950s by Freidman and Rosenman, two American cardiologists. Researchers have found that introverted people, who are always eager to please, may be more prone to cancer, particular if they respond to stress with depression and a feeling of hopelessness. They also now may be more susceptible to a significantly higher risk of heart attacks and strokes. Cynical people, who easily become hostile, are more likely to be diabetic and if they have a suspicious nature, are also likely to have raised blood pressure when they get frustrated. However, optimists get ill less often, less seriously and tend to live longer, but over-optimists have a tendency to adopt risky, health threatening lifestyles. Even though the links between personality type and cardiovascular disease are increasingly robust, there are other factors that play their part and perhaps the way we deal with the stress of modern day life is key in future longevity.

‘A study comparing the perceptions of sweet and savoury waffles between elderly and young subjects found that they both liked them but “the young were more efficient at chewing”. Surprise, surprise!’

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