

# Dr Paul Clayton's Health Newsletter

## Oils and Spices

I travel widely for my work. In 2012 I studied and lectured in Finland, Sweden, USA, Australia, Greece, Turkey, New Zealand, Malaysia, Thailand, Japan and India. I always try to eat local food, and am constantly surprised by the variety of dishes that different cultures have to offer. Stinky tofu stewed with clotted pigs blood in Taiwan was a high point, a dish so chock-full of highly bioactive polyamines that, like the fermented fish dishes of northern Norway and Sweden (*surströmming*) it accelerates the healing process (ie Brzozowski et al '93, Rao et al '12); but can also speed tumour growth (ie Soda '11).

A large part of the ageing process as we experience it today is driven by **chronic inflammation**, and the major dietary and other factors that either slow or accelerate this process are well characterised. I had often wondered how people manage to live well in such different environments, consuming such different diets.

How can an Indian and an Inuit, for example, both maintain an anti-inflammatory internal environment, and thus both achieve healthy old age? And what implications might this have for regional health issues as the juggernaut of fast food franchising, which combines empty calories with pro-inflammatory toxins (Gillis & Gillis '05, Cordain et al '05, Bengmark '12), rolls over the globe?

Finally, a few months ago, I gained nutritional enlightenment while visiting an IT college in New Delhi. In South East Asia, and in the tropical and sub-tropical regions in general, intakes of the essential **omega 3** fatty acids are very low. There are no cold water fish, and the only omega 3s available to the inhabitants of these areas are in plant oils, which are notoriously poor sources; so they tend to have very poor omega 3 to 6 ratios in their blood (Amo & Eide '12). However, they do consume large amounts of spices, in almost every dish and at every meal, and the spices are excellent

sources of **flavonoids**. In contrast, Northern Europeans eat a diet relatively high in omega 3s but low in spices—Scandinavian food is often very bland!

Flavonoids and omega 3 fatty acids have potent but different anti-inflammatory effects, and it seems that if you eat enough of at least one of these nutrient groups you gain a reasonable degree of health protection. For total protection, however, you need both.

Fast foods have had serious public health consequences in the West, but we have a residual degree of protection against chronic inflammation due to our intakes of omega 3 in oily fish, from salmon to sardines. The Asians do not have this protection, and rely on the anti-inflammatory flavonoids in the spices they eat. The problem is that there is a generation of IT and office workers all across Asia who have left their native cuisine behind, and combine a sedentary lifestyle with cigarettes and a diet consisting mainly of burgers, fries, pasta, pizza and soft drinks. They are consuming no omega 3s and hardly any flavonoids, and thus have no anti-inflammatory protection at all.

The impact of this is just starting to emerge. I believe that the surprisingly high frequency of obesity, Type 2 diabetes and hypertension I saw in the young IT students will soon grow into a tsunami of degenerative disease in urbanised Asians which will overwhelm their health-care capabilities. Their situation may be made even worse by specific metabolic factors linked to the so-called 'thrifty gene' (ie Bhopal & Rafnsson '09).

Modern medicine can do nothing to prevent or cure these problems, and 're-setting healthcare priorities' (see over), is tantamount to re-arranging the deckchairs on the Titanic. Nutritional, dietary and lifestyle re-programming is the only way to ensure that India and China do not sink under the burden of bad Western dietary habits and unnecessary disease.

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### The Paul Clayton Health Newsletter

- Easy to read
- All references on the back page
- Up-to-date news and design
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**“Flavonoids and Omega 3s have different anti-inflammatory effects.**

**For total health protection you need both, as described in my new report INFLAMM-AGEING.”**

**“The increased need for medical resources for the ‘diseases of civilisation’ has driven up healthcare spending from 1% of GDP in the late 19th century to 18% today. And it’s getting worse.”**

**“None of the ongoing pandemics of degenerative disease is inevitable—they are not occurring because we are growing older, but are being triggered by our unhealthy lifestyles and sustained dysnutrition.”**

## Living longer—living better ... ?

According to the crude stats, we’re living longer. According to the Global Burden of Disease Study, an enormously expensive and rather fatuous exercise in number-crunching funded by the Gates Foundation and just published in the *Lancet* (Salomon et al '13), global life expectancy has risen from 59 in 1990 to 70 today. According to the medical profession and the pharmaceutical industry all is increasingly for the best in this, the best of all possible worlds. And according to those who really know, this is claptrap. In fact, it is nothing short of a public health disaster.

A very large part of the increase in global life expectancy is due to reduced infant mortality in the developing world, which has been achieved with improved sanitation, clean water and immunisation programmes. But what has modern medicine done for life and health expectancy for adults?

### Male life expectancy has fallen in the UK compared with the 19<sup>th</sup> century

The results have been mixed, to say the least. In the UK, for example, and comparing like for like, the situation for men has worsened significantly over the last century and a half. In mid-Victorian England, male children aged 5 could expect to achieve, on average, another 75 years of life (Charlton & Murphy '04, McNay et al '98). By 2002-2006, the life expectancy of boys born to parents with routine occupations (formerly ‘working class’) had *fallen* to 74.6 years (ONS '11) – a **loss of 5 years\***.

**Women** have done better. Mid-Victorian girls aged 5 could expect another 72 years of life (Charlton & Murphy '04, McNay et al '98), and in 2002-2006, the life expectancy of girls born to C1-C2 parents was 79.7 years (ONS '11) – a **gain of nearly 3 years\***.

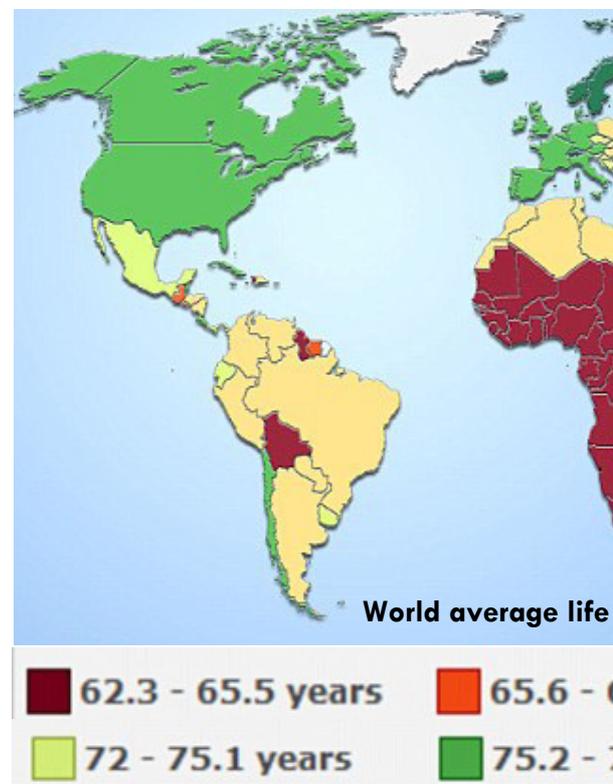
Why have men and women fared so differently? The answer is simple: in the 19<sup>th</sup> century, female life expectancy was dragged down by multiple pregnancies (contraception was basically unavailable) and the perils of childbirth. Family planning and better obstetrics (such as doctors learning to wash their hands between patients) have given women an average of three more years of life.

Why have men lost life expectancy? The answer again is simple: nutritional standards have fallen hugely since the 19<sup>th</sup> century, thanks to the modern food industry and to our

low-energy lifestyles. Our appalling nutritional status condemns us to an unnecessarily high risk of acquiring, as we age, one or typically more of the non-communicable degenerative diseases; and thus we spend far more of our old age suffering from the so-called diseases of civilisation than ever before (Clayton & Rowbotham '09, Lim et al '13, Vos et al '13, Murray et al '13).

### Cancer is dramatically increasing

The resulting increased need for medical resources has driven up healthcare spending from circa 1% of GDP in the second half of the



19<sup>th</sup> century (Clayton & Rowbotham '13), to approximately 18% today (UK Public Spending '12); and it is getting worse. According to leading oncologist Professor Karol Sikora: “The incidence of cancer is dramatically increasing ... the last eight cancer drugs approved by the US Food and Drug Administration will cost over £10,000 a month per patient ... no healthcare system can afford this ...” (Sikora '11, Sullivan et al '11).

Unfortunately, it’s not just cancer. If diabetes, coronary artery disease, dementias (and cancer) are diseases of civilisation, we are certainly becoming more civilised. But conversely, this is telling us that none of the on-going pandemics of degenerative disease is

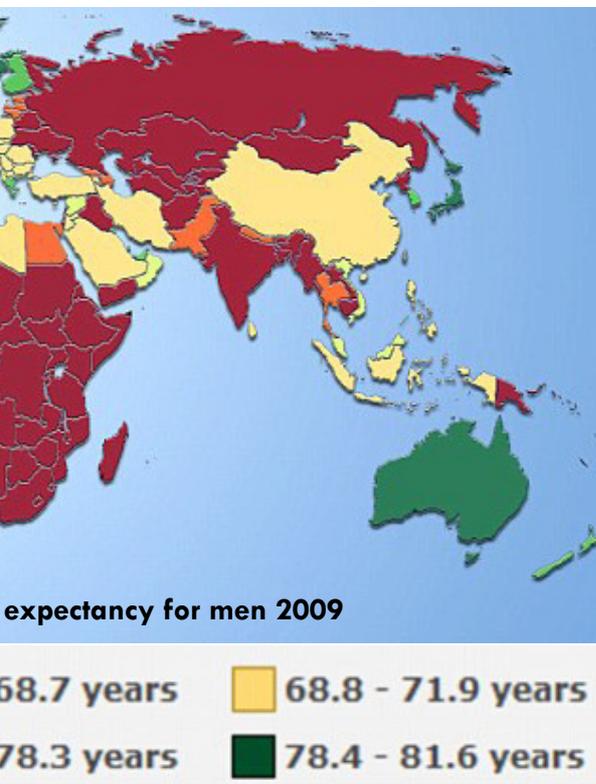
\* taking into account contemporary infant mortality rates

inevitable; they are not occurring because we are growing older (we are not, much); but are being triggered by our unhealthy lifestyles and sustained, often life-long dysnutrition—which results in chronic inflammation.

### **Degenerative diseases cannot be cured with drugs**

These diseases cannot be cured with drugs, and so increasing numbers of us develop health problems that cause many years of pain, disability and mental distress (Lim et al '13, Murray et al '13, Vos et al '13). This is no 'distressing irony', as the papers' authors call it, but a direct result of the way in which medicine is practised.

20<sup>th</sup> century medicine focused on the curative



treatment of bacterial, fungal and protozoal infection with antibiotics; the prevention of infection via immunisation; and the (non-curative) treatment of symptoms of non-communicable disease, using specific and often hazardous drugs.

### **Doctors are taught to disregard nutrition**

Taught at medical school to disregard nutrition, 21<sup>st</sup> century doctors remain fixated on drugs even though the literature linking nutrition and nutrients to health outcomes is growing at a rate of hundreds of papers per week. They ignore the root causes of the flood tides that wash, every day, the victims of poor diets and lifestyles into their surgeries.

And the tides are rising. Overweight, diabetes,

hypertension, cardiovascular disease, cancer – *all* of the chronic degenerative diseases – are driven by lifestyle factors. Not enough exercise, fruits or vegetables, and too much smoking, alcohol, salt, omega 6 fatty acids and fast food. And all these factors are going in the wrong direction.

### **Shoppers are buying less healthy food**

Supermarket food prices are rising much faster than incomes and as a result, shoppers are buying less healthy food and more of the fatty, filling, salty products that provide both comfort and disease. In the last year there has been a 10% fall in fruit and vegetable purchases, with an even greater fall (22%) in low income homes (DEFRA '12). This study of more than 6,000 households compared actual food consumption to the government-recommended *eatwell plate* (itself a very low standard), and concluded that 'neither low income households nor all households are close' to achieving it.

Chris Murray, Professor of Global Health at Washington University and a lead author of the global study, summarised his team's findings. "Very few people are walking around with perfect health," he said, "and as people age, they accumulate health conditions. This means we should recalibrate what life will be like for us in our 70s and 80s. It also has profound implications for health systems as they set priorities."

### **We cannot afford a future based on drugs, surgery and expensive medicine**

I agree that very few people have perfect health, but the rest of Professor Murray's statement represents a profound failure of courage and intellect. It implies that a globally ageing population will inevitably become sicker, and that this must be planned for in a framework based on drugs, surgery and expensive medicine. It ignores the fact we cannot afford this future. It ignores the fact that current trends will degrade life and health expectancy way beyond these basic demographics; and it effectively ignores the fact that the only way to prevent these tides of disease is to cut them off at source, by improved nutrition.

Let us hope that the growing evidence base linking good nutrition to better health will eventually overcome the resistance of the pharma lobby and become incorporated into government policy, agricultural practice and food design. The barriers between us and vastly better health are no longer scientific, but political.

**"In the last year there has been a 10% fall in fruit and vegetable purchases, with an even greater fall of 22% by people from low-income homes."**

**"The only way to prevent these tides of degenerative disease is to cut them off at source, by improved nutrition."**

The Dr Paul Clayton Health Newsletter describes developments in the new field of pharmaco-nutrition, where nature and science are combined to offer non-drug solutions to degenerative disease.

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## Canary in the coalmine? Reduced sperm counts

Sometimes it is necessary for the old order to fail before a new order can be considered, particularly when there are powerful groups (health insurance companies, the pharmaceutical industry, the medical profession) with vested interests in the status quo. Most of us ignore warnings that the old system is at the point of failure until they are couched in language that touches us. Here is such a warning.

It comes from France, where a recent nationwide survey has shown that male sperm counts are falling precipitously (Rolland et al '12). Researchers found that during the 16 years between 1989 and 2005, sperm counts in French men progressively dropped by an average of 32.3%. Numbers of normally formed sperm also fell by a third.

The French results confirm research over the past 20 years that has shown sperm counts declining in many countries (ie Jorgensen et al '11, Haimov-Kochman et al '12), and indicate that masculinity itself is under threat. Further evidence for this comes from the rise in rates of testicular cancer which have doubled in the last 30 years, high rates of prostate cancer (the second leading cause of cancer death in males in the West) and increasing rates of other male sexual disorders such as undescended testes.

Dr Joelle Le Moal, an environmental health epidemiologist and one of the study's authors, described the French findings as "... a serious public health warning." Richard Sharpe, the internationally renowned professor of reproductive health at the University of Edinburgh, agreed. "There can be little doubt that the

decline in sperm counts is real," he said. "Something in our modern lifestyle, diet or environment is causing this and it is getting progressively worse."

Nature has engineered a good deal of redundancy into us, and healthy men produce far more sperms than necessary for conception, but we are reaching the point where fertility is being substantially compromised. In the 1940s, semen samples from young men averaged over 100 million sperms per ml. Now sperm counts in the majority of 20-year-old European men are so low that we are close to the crucial tipping point of 40 million/ml, which is where sub-fertility kicks in. In Denmark, 40% of young men are below that figure (Andersson et al '08), and the French are in the same bateau. Significant and increasing numbers of men are presenting with counts below 15 million/ml—well into the infertile range.

The causes of falling sperm counts are not understood, but the evidence indicates that environmental toxins and a lousy diet both play a role. It is important to note that fertility rates have not yet shown any untoward variations (ie Mascarenhas et al '12). However, if sperm counts continue to fall at the current rate, our children and grandchildren will experience ever-increasing rates of infertility and human populations will start an exponentially accelerating collapse by around 2030.

If this is not, finally, a call to action to the scientifically illiterate and predominantly male graduates who currently lord it over us, I don't know what is.

## REFERENCES

- p1 World diets**  
Amo T, Eide O. Industry data, personal communication '12
- Bengmark S. Gut microbiota, immune development and function. *Pharmacol Res.* 2012 Sep 16. doi:10.1016/j.phrs.2012.09.001
- Bhopal RS, Rafnsson SB. Could mitochondrial efficiency explain the susceptibility to adiposity, metabolic syndrome, diabetes and cardiovascular diseases in South Asian populations? *Int J Epidemiol.* 2009 Aug;38(4):1072-81.
- Brzozowski T, Konturek SJ, Majka J, Dembinski A, Drozdowicz D. Epidermal growth factor, polyamines, and prostaglandins in healing of stress-induced gastric lesions in rats. *Dig Dis Sci.* 1993 Feb;38(2):276-83.
- Cordain L, Eaton SB, Sebastian A, Mann N, Lindeberg S, Watkins BA, O'Keefe JH, Brand-Miller J. Origins and evolution of the Western diet: health implications for the 21st century. *Am J Clin Nutr.* 2005 Feb;81(2):341-54.
- Gillis L, Gillis A. Nutrient inadequacy in obese and non-obese youth. *Can J Diet Pract Res.* 2005 Winter;66(4):237-42.
- Rao JN, Rathor N, Zhuang R, Zou T, Liu L, Xiao L, Turner DJ, Wang JY. Polyamines regulate intestinal epithelial restitution through TRPC1-mediated Ca<sup>2+</sup> signaling by differentially modulating STIM1 and STIM2. *Am J Physiol Cell Physiol.* 2012 Aug 1;303(3):C308-17
- Soda K. The mechanisms by which polyamines accelerate tumor spread. *Journal of Experimental & Clinical Cancer Research* 2011, 30:95
- p2-3 Lifespans and health/disease**  
Charlton J, Murphy M, editors. *The Health of Adult Britain 1841-1994.* 2 vols. London: National Statistics; 2004.
- Clayton P, Rowbotham J. 2013; work in progress
- DEFRA 2012. <http://www.defra.gov.uk/statistics/files/defra-stats-food-farm-food-familyfood-2011-121217.pdf>
- Lim et al 2012. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet.* 2013 Dec 15;380(9859):2224-60.
- McNay K, Humphries J, Klasen S. Cambridge Working Papers in Economics. Cambridge: 1998. *Death and Gender in Victorian England and Wales: Comparisons with Contemporary Developing Countries.*
- Murray CJ et al. Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet.* 2013 Dec 15;380(9859):2197-223.
- Office for National Statistics 2011. <http://www.ons.gov.uk/ons/rel/health-ineq/health-inequalities/trends-in-life-expectancy-1982-2006/trends-in-life-expectancy-by-the-national-statistics-socio-economic-classification-1982-2006.pdf>
- Salomon JA, Wang H, Freeman MK, Vos T, Flaxman AD, Lopez AD, Murray CJ. Healthy life expectancy for 187 countries, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet.* 2013 Dec 15;380(9859):2144-62.
- Sikora K '11. <http://www.telegraph.co.uk/health/healthnews/8791979/The-big-C-cancer-treatment-is-increasingly-unaffordable.html>
- Sullivan R, Peppercom J, Sikora K, Zalberg J, Meropol NJ, Amir E, Khayat D, Boyle P, Autier P, Tannock IF, Fojo T, Siderov J, Williamson S, Camporesi S, McVie JG, Purushotham AD, Naredi P, Eggermont A, Brennan MF, Steinberg ML, De Ridder M, McCloskey SA, Verellen D, Roberts T, Storme G, Hicks RJ, El PJ, Hirsch BR, Carbone DP, Schulman KA, Catchpole P, Taylor D, Geisler J, Brinker NG, Meltzer D, Kerr D, Aapro M. Delivering affordable cancer care in high-income countries. *Lancet Oncol.* 2011 Sep;12(10):933-80
- UK Public Spending; [http://www.ukpublicspending.co.uk/uk\\_budget\\_pie\\_chart](http://www.ukpublicspending.co.uk/uk_budget_pie_chart)
- USA stats: <http://www.infoplease.com/ipa/A0005140.html>
- Vos T et al. Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet.* 2013 Dec 15;380(9859):2163-96
- p4 Sperm counts**  
Andersson AM, Jorgensen N, Main KM, Toppari J, Rajpert-De Meyts E, Leffers H, Juul A, Jensen TK, Skakkebaek NE. Adverse trends in male reproductive health: we may have reached a crucial tipping point. *Int J Androl.* 2008 Apr;31(2):74-80.
- Haimov-Kochman R, Har-Nir R, Ein-Mor E, Ben-Shoshan Y, Greenfield C, Eldar I, Bdoiah Y, Hurwitz A. Is the quality of donated semen deteriorating? Findings from a 15 year longitudinal analysis of weekly sperm samples. *Isr Med Assoc J.* 2012 Jun;14(6):372-7
- Jorgensen N, Vierula M, Jacobsen R, Pukkala E, Perheentupa A, Virtanen HE, Skakkebaek NE, Toppari J. Recent adverse trends in semen quality and testis cancer incidence among Finnish men. *Int J Androl.* 2011 Aug;34(4 Pt 2):e37-48
- Mascarenhas MN, Flaxman SR, Boerma T, Vanderpoel S, Stevens GA. National, regional, and global trends in infertility prevalence since 1990: a systematic analysis of 277 health surveys. *PLoS Med.* 2012 Dec;9(12):e1001356.
- Rolland M, Le Moal J, Wagner V, Royère D, De Mouzon J. Decline in semen concentration and morphology in a sample of 26 609 men close to general population between 1989 and 2005 in France. *Hum Reprod.* 2012 Dec;27(12):3511-6.
- Xie WC, Chan MH, Mak KC, Chan WT, He M. Trends in the incidence of 15 common cancers in Hong Kong, 1983-2008. *Asian Pac J Cancer Prev.* 2012;13(8):3911-6.