



LIVE WELL LIVE LONG

Teachings from the Chinese
Nourishment of Life Tradition

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The crane is a symbol of longevity in Chinese culture. It is believed to live an unusually long life, its white feathers mirror old age, and it is the bird that carries 'immortal' Daoist masters to Heaven.

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PREFACE

Somewhere around the age of sixteen, I became fascinated with the 'mysterious East'. My brother and I used to visit Watkins bookshop off Charing Cross Road in London to pore over books on Buddhism and Taoism.¹ We read both sober and fantastical tales of adventures in remote Tibet, and dabbled in meditation and yoga without really knowing what we were doing. None of this was surprising. It was the mid 1960s and the burgeoning hippie culture was following a long-standing European tradition of mining Asian traditions for alternative life visions.

Perhaps more surprisingly, for me this fascination continued unabated - right through to the present day - and has informed my work and my understanding of the world. For a while I was deeply immersed in Buddhism. I became enthused by macrobiotics - a way of eating based on a Japanese version of yinyang theory. In the 1970s that enthusiasm was powerful enough to lead me to co-write a cookbook and to co-found a natural foods shop, bakery and distribution warehouse, as well as an educational health charity that to this day offers classes in yoga, tai chi, qigong, dance, Pilates and much more.^{2 3 4}

When I tired of the food business, it seemed a natural progression to study Chinese medicine in order to explore more deeply some of the ideas that macrobiotics had exposed me to. I qualified as an acupuncturist in 1978, and as a herbal medicine practitioner some years later. I visited China twice to study and practise, and treated patients for nearly 30 years. As an expression of my fascination with Chinese medicine, I also founded a journal and co-wrote an acupuncture textbook.^{5 6}

In the early 1990s I began to practise qigong (Chinese body-mind exercise) and have continued to do so, and more recently to teach it.

While these activities were going on, I underwent a concentrated spell of psychotherapy, built a yurt out of locally coppiced wood and spent time in nature with it, played violin in a klezmer band, and studied creative writing.^{7 8} Most recently I co-founded a small, ethical, artisan tea business.⁹

I recount these various events to reveal, and almost to surprise myself by discovering, a clear path that has run through my life. As is the case for many of us, it seems to have been the result of a host of minor decisions rather than a mapped out life plan. That path has of course been health and well-being and the many different ways in which we can enjoy and foster it by our own actions.

In my own case, beyond the compulsion to keep learning about the wonderful traditions I have been lucky enough to encounter, and to pass their benefits on to the patients I treated, there has been the necessity to address my own health. As a child I was never especially robust. Then a life-changing period of thrilling but reckless living in my late teens and early twenties, and many years of compulsive smoking, did me no favours. As a result I have been forced to take care of myself in order to manage my life. While I have sometimes been envious of those who are more innately healthy, I do also understand that life challenges are great - maybe irreplaceable - educators.

This book, therefore, is a weaving together of the different threads of my life. It melds together my work and studies, my experience of being human (family, friendships, marriage, fatherhood, grandfatherhood), the pleasure I get from research and writing, my love of tea, nature, music and dancing, and my socialist family background which imbued me with principles of social, political and economic justice. I sincerely hope that it will be of some benefit to others.

Peter Deadman, 2016

Acknowledgements

I am not a Sinologist, nor do I read Chinese. I am therefore indebted to all the wonderful scholars who have translated the ancient and classical texts used as resources for this book. It would have been inconceivable to write it without them. If there are faults with my interpretation of their work, that fault is entirely mine.

I am also indebted to the countless researchers whose work has been used in this book. Having watched colleagues struggle with the minefield of research projects, I am aware of the hard work and frustration involved.

In addition to the authors referenced at the end of each chapter, I am also indebted to a number of people – academics, Chinese medicine practitioners, friends and colleagues, who have generously given me advice and feedback.

Special thanks therefore to Debra Betts, Charlie Buck, Wu Di, Merete Linden Dahle, Anne Duggan, Andrew Flower, Roy Jenzen, Tom Kennedy, Mel Koppelman, Vivienne Lo, Jana Martinez, Afron Monro, Whitfield Reaves, Lisa Sherman, Michael Stanley-Baker, Nikki Ward, Sabine Wilms and Yi-Li Wu.

Heartfelt thanks also to the wonderful British Library and to the sometimes unfairly maligned Wikipedia.

The sages did not treat those who were already ill but treated those who were not yet ill. They did not try to put in order what was already in disorder but tried to prevent disorder from arising in the first place. Treating disease after it has arisen is like starting to dig a well when one is already thirsty, or only starting to cast weapons once the battle has begun. Would these also not be too late?

The Yellow Emperor's Inner Classic of Medicine from 2nd century BCE

CHAPTER SIX

How to eat

*Experts at curing diseases are inferior to
specialists who warn against diseases.
Experts in the use of medicines are inferior
to those who recommend proper diet.*

Zhi Chen, 11th century²

CHAPTER SIX

How to eat

He that takes medicine and neglects diet wastes the skills of the physician.

Chinese proverb

People who practise medicine must first thoroughly understand the source of the disorder and know what has been violated. Then, use food to treat it, and if food will not cure it, afterwards apply drugs [medicines].

Sun Simiao, 7th century¹

The prestigious Institute of Health Metrics and Evaluation in the United States recently issued an update to its *Global Burden of Disease Study*. It identified poor diet as the single greatest cause of global ill health - more than smoking, alcohol, pollution or any other factor. The Institute particularly singled out diets which are low in fruit, vegetables and whole grains and high in red meat and sugar-sweetened drinks.³

Chinese medicine and the Chinese health preservation tradition have always understood that diet is fundamental to health and longevity. It is even viewed as a branch of medicine in its own right - with specific and individualised dietary changes recommended to patients as part of their treatment. In fact as early as the Zhou dynasty (11th to 3rd centuries BCE) the Emperor's medical services classified it as the highest form of practice, with two upper masters specialising in dietary medicine. Below them eight middle masters acted as general physicians, and eight lower masters as surgeons.⁴

This tradition continues. Anyone consulting a Chinese medicine practitioner today is likely to be advised to adjust their diet and told which foods might be good to eat, and which to avoid, to help their disorder. In many Chinese households, altering the diet may be the first step taken whenever anyone falls ill. As a Chinese saying goes, "Medicine and food share a common origin".

This seemingly obvious association between food and health was largely forgotten by modern medicine in the twentieth century. When I co-founded a natural food shop in the 1970s, for example, orthodox scientific opinion ridiculed the idea that diet and cancer could be related.⁵ Today it is thought that around ten per cent of UK cancer cases are caused by poor diet and that a third of US cancer deaths are linked to a combination of diet and lack of physical activity.^{6 7}

We are all now aware that our health and what we eat and drink are inextricably linked, yet the decisions we have to make about something as seemingly simple as eating have never been more complex. For many of us, the question of how to feed ourselves and our families - for health, for affordability, for fairness and for sustainability - has become both pressing and difficult to answer.

Diet – the challenges

- At the same time as hunger and deprivation affect hundreds of millions of people, many nations are fighting a losing battle with over-nutrition (too much food) combined with malnutrition (poor quality food), resulting in an explosion of obesity and diet-related diseases.
- Food was traditionally eaten fresh, or processed using time-honoured techniques. Nowadays, industrial food processing means that our shops are full of ‘food-like’ products, which would have been unrecognisable to our grandparents and ancestors (whose diets had barely changed for several thousand years). In the nonsensical world of food economics, these products (whose ingredients may have been shipped great distances, factory-processed, heavily packaged and re-shipped to shops and supermarkets throughout the world) can be cheaper to buy than unprocessed food grown just a few miles away from our homes.
- For most of our history, ordinary people had relatively little choice when it came to food. They ate what was grown, hunted or gathered in their immediate neighbourhood, and which varied according to the seasons. Only kings, emperors and wealthy merchants could afford to eat whatever they wanted, importing food from far off lands to satisfy their desires. Nowadays, what we casually bring home from the shops is beyond even their wildest dreams. Fruit lovers in Edinburgh can eat pineapples from Costa Rica, grapes from Chile or kiwi fruits from New Zealand as the snow falls on Arthur’s Seat. We fly in vegetables and seafood from far continents, and - in big cities at least – can buy specialist items from virtually every international cuisine on the planet. Whether we prefer to eat ‘real’ food or junk food, we are faced with almost unlimited availability, making choice and moderation ever more challenging.
- Whereas knowledge of what to eat has traditionally been handed on – generation after generation - by our ancestors, we (and our children) are now bombarded by seductive food advertising on the one hand, and by well-meaning but often contradictory advice from governments, scientists, nutritionists and the media on the other.
- Even when we have made a decision to eat ‘real’ food, we may additionally be concerned about the environmental and economic impact of our choices. Questions of food provenance (where it is grown and how far it has had to travel), sustainability (what resources have been required to produce it, its impact on the environment), growing method (for example organic versus non-organic), food justice (are we taking a fair share of available resources), economic justice (are the farmers receiving a fair reward for their craft and labour), packaging and waste, further complicate our decisions.
- While availability and choice mean the range of foods we can eat is greater than ever, modern farming and marketing methods have resulted in a significant and steady decline in the mineral and vitamin content of our vegetables, fruits and other staple foods as well as a growing list of pesticide residues (see organic farming in the following chapter).
- The rise in world population and growing prosperity in developing nations has resulted in an almost insatiable desire for animal foods. Rain forests are desecrated to grow soya for animal feed, while the seas are emptied of fish. Climate change is further threatening some of

the great grain-growing regions of the world, leading to rising prices and hunger. Questions of fairness and sustainability in diet are therefore becoming impossible to ignore.

- Nobody is going to become popular by campaigning for more expensive food, but the fact is that farmers, farm animals and consumers are suffering from ever reducing prices. The percentage of household income spent on food in most developed countries has halved in the last 50 years. The result is more and more mass production and a lowering of standards of animal welfare, nutritional content and regional variety. If we want good food, we need to pay for it so that farmers are properly rewarded for their craft, and their care of soil and livestock. The best answer to food poverty is not cheap food, but more equal distribution of income.
- Food and the eating of it is one of our greatest pleasures. History, culture and human ingenuity come together in the combining and preparation of a finite number of ingredients into an infinite number of dishes. Cookbooks are best-sellers, TV schedules are full of cookery programmes and we are becoming familiar with the rich traditions of national and regional cooking from all over the world. Cooking for, and eating with, others is one of the characteristics that defines us as human, reinforcing our social bonds and providing an opportunity to express our love and generosity. How sad then, that for more and more of us food has become a source of fear, anxiety and distress. The love-hate relationship that millions of obsessive dieters, faddists, bulimics, anorexics, orthorexics etc. have in relation to food should remind us that however much rightful attention we pay to the question of how and what we eat, we should never lose sight of that most basic of pleasures – eating when we are hungry.

In my nearly thirty years as a practitioner of Chinese medicine, I found that patients asked my advice on diet – specifically what to eat – probably more often than any other question. In trying to answer them, I gradually came to realise that the ‘how’ of eating rather than the ‘what’ is usually the most important question to start with. This chapter is therefore devoted to eating habits (the how), and the following chapter will consider which foods might make up an optimal diet (the what).

How to eat - quantity

When eating, stop when you are seven tenths full.

Chinese saying

Eat to be only half full and of no more than two dishes; drink seldom and then only three tenths of one’s capacity.

Gong Tingxian, 1522-1619⁸

“This is the special method of lengthening the years and ‘eating for old age’ and the utmost art of nurturing life.”

Sun Simiao, 7th century¹

Eating less – the evidence

Chinese health cultivation books are full of the benefits of eating less, and every Chinese person is familiar with the saying ‘stop when you are seven tenths full’. As Sun Simiao suggests above, diet is even a ‘special method’ for increasing lifespan. While this may seem like an extraordinary claim, the evidence for it is compelling. What is nowadays called ‘calorie restriction with optimal nutrition’ can not only offer significant improvements in health and increased lifespan, but also reduce the risk of mental decline and dementia. We will see later how moderate calorie restriction can be practised in a simple and natural way (without even thinking about calories), but first it is interesting to look at some of the research behind this idea.

Calorie restriction – living longer

Gerontologists over the past several decades have identified few therapies that consistently extend the life span of multiple species. Calorie restriction (CR), the reduction in macronutrient intake while maintaining sufficient micronutrient intake, is one notable exception.

Dietary Interventions to Extend Life Span and Health Span Based on Calorie Restriction, 2010⁹

In 1935 the first study into calorie restriction was carried out on laboratory rats put on a restricted but nutritionally complete diet.¹⁰ They attained ‘extreme ages’ beyond those of normally fed rats.

It is worth pointing out that a ‘normally fed’ laboratory animal is not eating in the same way as it would in the wild, where food may be scarce and intermittent. Like affluent humans, food is normally available to laboratory animals in unlimited amounts, without any periods of imposed shortage.

It is also important to understand that a calorie restricted diet must be nutritionally complete and that when it is not, or else when calorie restriction exceeds the level that results in greater longevity and health, it will cause starvation, sickness and even death. Yet properly managed, caloric restriction appears to offer surprising outcomes.

A 1986 study divided mice into six groups, ranging from normally fed to around 60 per cent restricted diet (i.e. 40 per cent of normal calories).¹¹ For every degree of restriction, the mice lived longer, with the mice from the most restricted group living half as long again as normally fed mice. Indeed the longest-lived mice from this latter group lived to an average of 53 months – the greatest lifespan ever reported in mice. They also showed significant reductions in tumours and other age-related signs.

Studies on species as varied as monkeys, fruit flies, dogs and guppy fish have come up with similar conclusions - that a calorie restricted diet can increase longevity, maintain

nervous system and cognitive functions for longer, improve immune function and reduce the incidence of disorders such as atherosclerosis (build-up of plaque on the insides of the blood vessels), cardiovascular disease, cancer, diabetes, renal (kidney) disease, neurodegenerative disease (e.g. Parkinson's, Alzheimer's), respiratory disease and autoimmune disease.^{12 13}

Although the benefits of calorie restriction appear to increase with the degree of restriction (up to the point of starvation) and the length of time it is continued (many animal studies examine the effects of calorie restriction from weaning onwards), one study of rats found benefits after only ten days.¹⁴

Because of our much longer lifespans, experiments on humans have not yet continued long enough to confirm that calorie restriction has the same effect of extending longevity (although see the epidemiological study of the Okinawan diet below). However, those human studies that are underway show beneficial changes in a range of biomarkers, especially those related to cardiovascular disease (lowering of total cholesterol, triglycerides, blood pressure etc.) and regulation of glucose.^{12 15}

A relatively recent trend in calorie restriction research has focused on the protein element of diet. This is partly in recognition of the fact that restricting calories over long periods is extremely challenging, and if a specific dietary element can be found to make a difference, this would be easier to manage. Several studies have suggested that protein restriction alone can extend maximum lifespan by 20 per cent.¹²

Evidence from Okinawa

Okinawa – an island off the South coast of Japan – is credited with having one of the greatest life expectancies of any society in the world – or rather it did until the US military presence from 1945 onwards ushered in a modern Western lifestyle. Unlike several other long-lived societies, the Okinawans kept meticulous birth and death records and so the great number of centenarians can be independently verified.

Several reasons have been proposed for the longevity of that generation of Okinawans born and brought up before the rapid social changes of the second half of the twentieth century. These include genetics, strong social bonds, low levels of stress, and regular exercise. Yet it is widely accepted that the Okinawan diet plays a major role. A seminal study conducted in 2007 reported that Okinawans consumed significantly fewer calories overall than the average Japanese, with three times as many vegetables, less fat, less rice and other grains, less sugar, fewer eggs, less fish and meat and less dairy.¹⁶

As a result, elderly Okinawans displayed little weight gain throughout their life, reduced mortality from age-related diseases, relatively high levels of plasma DHEA (a natural steroid known as the 'fountain of youth hormone'), and extended average and maximum lifespans.¹⁷

The extraordinary story of Overkalix

Not only does calorie restriction appear to benefit individuals, but it may even have an effect across generations. The isolated northern Swedish parish of Overkalix suffered periods of

crop failure and impoverishment during the late 19th and early 20th centuries. A study of population data found that sons born to fathers who experienced food shortages between the ages of eight and twelve were less likely to die from cardiovascular disease (CVD), and there was even some protection against CVD and diabetes in those whose grandfathers had gone through lean years at the same age.¹⁸

The Newcastle diabetes diet

Type 2 diabetes (which affects hundreds of millions of people worldwide, nowadays including children) is considered to be a progressive disease leading to irreversible failure of insulin secreting cells in the pancreas. In a landmark study, researchers from the UK's Newcastle University put eleven adults with Type 2 diabetes onto a severely restricted diet for eight weeks.¹⁹ They were only allowed 600 calories a day, in the form of liquid diet drinks and non-starchy vegetables. By the end of the study, fat levels in the pancreas had returned to normal and the pancreas actually regained its lost ability to make insulin. Three months later, seven of the eleven remained free of diabetes.

Calorie restriction and the brain

The less we eat the more open our minds are and the easier it is to increase our years. The more we eat, the more obstructed are our minds and the more we lose in years.

Nourishing Inner Nature and Extending Life , 7th/8th centuries²⁰

This extraordinary statement from *Nourishing Inner Nature and Extending Life* – a compilation of over 30 health cultivation texts from as early as the 3rd century BCE – proposes that eating less not only lengthens life but also benefits the mind and brain. Yet there is now strong evidence that obesity can have negative effects on mental functioning, while calorie restriction can benefit it.²¹

Obesity may have harmful effects on the brain. Studies suggest that accumulation of fat around the middle of the body or general obesity in midlife may increase the risk of dementia and more rapid cognitive decline in later life (although more recent studies suggest that being underweight can also increase the risk).²²⁻²⁴ Obesity in young adults (in their 20s and 30s) is associated with lower grey matter densities in certain regions of the brain, while obesity in midlife is associated with increased risk of brain atrophy due to reduced brain volume.²⁵⁻²⁷

Obesity is of course also associated with numerous other health problems. A US study of over one hundred thousand adults found that a large waist size, independent of body mass index, doubled mortality risk.^{28 29} It is known that a large waist reflects greater amounts of visceral fat (fat packed around the internal organs) which is associated with insulin resistance and greater risk of type 2 diabetes and cardiovascular disease.³⁰ Obesity is also associated

with an increased risk of developing cancer, and in the case of breast cancer a significantly increased risk persists even after obese women lose weight.^{31 32}

As for calorie restriction and the brain, we saw in the introduction how much concern the steady rise in dementia is causing. It is significant, therefore, that caloric restriction affects brain health. There is evidence that reducing food consumption can promote neurogenesis (production of new nerve cells in the brain) in mice as well as improving their learning ability.^{33 34} In a study of genetically obese rats, calorie restriction was found to increase the number of dopamine receptors in the brain.^{35 36} Rhesus macaque monkeys on a 15-year calorie-restricted diet (70 per cent of their free-feeding diet) showed a significant slowing down of normal brain ageing.³⁷ In humans, calorie restriction has been found to reduce atherosclerosis, cell inflammation and insulin resistance - factors associated with reduced cognitive function.³⁸ A small study conducted in 2008 found a 20 per cent increase in verbal memory scores in a group of adults who had spent three months eating 30 per cent fewer calories, compared to controls who either ate normally or increased their intake of unsaturated fatty acids.³⁹

Another study found that when obese adults on a controlled diet lost around ten per cent of their body weight, there were significant improvements in cognitive function as well as hand grip strength (a predictor of healthy ageing).³⁸

Eating enough

The Way of eating is that:

Overfilling yourself with food will impair your vital energy

And cause your body to deteriorate.

Over-restricting your consumption causes the bones to wither

And the blood to congeal.

Original Tao, 4th century BCE³⁹

The body should always be exercised; food should always

be minimal. Yet even in exercise do not go to extremes;

in minimizing food do not go to emaciation.

Ge Hong, 4th century⁴⁰

While the evidence on calorie restriction confirms the common Chinese saying, 'When eating, stop when you are seven tenths full,' eating too little is of course potentially harmful. People who are ill or recovering from illness, the elderly, the poor, the lonely and the depressed, those suffering from eating disorders such as anorexia nervosa, bulimia and orthorexia (obsessive preoccupation with a healthy diet) - all may eat insufficient, or insufficiently nutritious, food.

Among the elderly, especially, lack of appetite and malnutrition can be serious problems. This is discussed in more detail in Chapter 18.

How much should we eat?

The more you eat, the less flavour; the less you eat, the more flavour.

Chinese Proverb

*Always rise from the table with an appetite, and
you will never sit down without one.*

William Penn, 1644-1718

Counting calories is a depressing prospect and luckily an unnecessary one. The simple guide to how much to eat is to become aware of, and trust in, our appetite. But first we need to define (and maybe rediscover) true appetite. Appetite is not simply the desire for food, since that can be distorted by all kinds of factors.

If we find ourselves roaming the kitchen, feeling like ‘a little something’, checking the fridge and cupboards – unable to find the perfect match of our desires, that is not appetite – at least not in the healthy sense. Nor is a desire exclusively for foods high in fat, salt or sugar.

True appetite comes when we are genuinely hungry. It renders the plainest of foods – a carrot, a slice of good bread, a simple soup – astonishingly tasty. All our senses are alive to the food because our bodies genuinely need nourishment and the reward is the pleasure of enhanced taste. Indeed our enjoyment of food when we are truly hungry can be so intense that it can be even more difficult to stop before we are full.

Our evolutionary history, through the countless generations who struggled to obtain sufficient nourishment, means that we have been conditioned to eat our fill, or more than our fill, when food is in front of us. So we have to train ourselves by not being afraid of feeling hungry. A moderate level of hunger is the route to true pleasure in food and – because we genuinely need it – to healthy digestion, and the ability to maximise the nutrition we get from even the most basic of foods.

As the ‘eat to seven tenths’ mantra suggests, therefore, we should aim to finish a meal and leave the table while we are still a bit hungry rather than feeling ‘stuffed’. As we will see later, this especially applies to eating in the evening.

The 5:2 diet

One response to the growing understanding of calorie restriction has been the 5:2 diet. Rather than simply eating less as a regular habit, this offers the possibility of eating whatever is desired for five days a week, and severely restricting intake (600 calories for men, 500 for women) on the other two days. As yet there is little clinical evidence for the benefits of the 5:2 diet, although its proponents wax lyrical about it (as do the proponents of most diets). From a Chinese medical point of view, while offering the digestive system a beneficial rest for two days a week, it goes against the core principles of regular eating (see below). And if it leads to unrestricted eating of poor quality food on the five normal days a week, its benefits may be limited.

A word about drinking

Something funny has happened to drinking recently. For all but a nano-fraction of our history, humans got on perfectly well by judging how much water to drink according to how thirsty they were. Then it all seemed to change. We were warned about a fearsome kind of imperceptible dehydration that could cause all kinds of health problems. The idea that we needed to drink two litres of water a day (on top of all other drinks) suddenly became an accepted maxim and this neatly coincided with the appearance of a brand new product – bottled water. Worldwide consumption of bottled water reached 10 billion gallons in 2013, with a 2012 value in the US alone of over 11 billion dollars.⁴¹

It is interesting, therefore, to discover that nobody knows where the ‘two litres a day’ mantra originated and that it has spread like a Chinese whisper. There is no evidence that drinking more water than determined by thirst has any benefit at all since the food we eat and other drinks we consume already contain large amounts of water. Drinking excess liquid just makes the kidneys work harder and means we have to urinate more. The environmental impact of bottled water is huge. It requires three litres of water to produce one litre of bottled water and tens of millions of barrels of oil to manufacture and transport them. Plastic bottles litter the world’s precious landscapes, fill up landfill sites, and pollute beaches and oceans while the industry discharges several million tons of carbon dioxide a year into the atmosphere.⁴² In addition, hormone-disrupting phthalates from plastic bottles leach into the water they hold.

How to eat – regular eating

When eating and drinking is doubled, the stomach and intestines are seriously harmed.

Yellow Emperor’s Inner Classic, from 2nd century BCE⁴³

One of the most famous schools of thought in Chinese medicine is the ‘Stomach and Spleen’ school of Li Dongyuan (1180-1252).⁴⁴ The term ‘Stomach and Spleen’ refers to the digestive system as a whole, and Li Dongyuan emphasised the obvious fact that the ability to extract energy and nourishment from food – a minimal requirement of health - is dependent on a healthy digestion. Many and varied diseases arise, he said, or are difficult to cure, because of an inability to process food effectively.

We therefore need to take good care of our digestive system if we hope to maintain health and live to a ripe old age (as opposed to simply living out our years suffering from steadily deteriorating health). Once our digestion weakens or becomes diseased, it can give rise to chronic disorders that cause pain and distress, loss of appetite, and weakening of the body. So important is a healthy appetite and digestion to life that involuntary loss of weight associated with ageing is a clear sign of increased mortality risk.⁴⁵ As the Chinese saying goes, “With Stomach qi there is life, without Stomach qi there is death”.

Digestive disease

Digestive diseases are among the most common of all disorders. According to a 2010 report, around 20 per cent of the US population suffer from them, at a cost (in 2004) of over 140 billion dollars.⁴⁶ Among the most common are chronic constipation, diverticular disease, irritable bowel syndrome, peptic ulcers and gastroesophageal reflux disease (GERD - manifesting with heartburn, nausea and regurgitation).

GERD can cause secondary problems such as asthma, cancer, bronchospasm, chronic cough, hoarseness, dental disease and stricture of the oesophagus. It is commonly treated by over-the-counter or prescribed antacids, with some studies suggesting that around 10 per cent of the population use them regularly or even daily.^{47 48}

In 2006, US citizens spent \$13 billion on antacid medications, and while these may be effective in relieving symptoms, there is a high probability that long-term they can make the condition worse and indeed contribute to the development of other more serious diseases.^{49 50} Certainly it is recognised in Chinese herbal medicine that the natural antacids used for treating heartburn (mainly calcium-rich shells such as oyster shell, abalone shell and cuttle fish bone) should only be used short-term in order not to damage the stomach. A recent study has suggested that people using proton pump inhibitors (indicated for heartburn/acid reflux and one of the most commonly taken of all drugs) are up to a fifth more likely to suffer from heart attacks and are at a significantly greater risk of developing vitamin B12 deficiency.^{51 52}

If we want our digestive system to function well throughout our lives, and especially into old age, we need to take care of it. The subject of how to look after and maintain digestive health is known as 'regular eating' and is made up of a number of factors.

Avoiding over-eating

Always feel a little hungry, even when full, a little full even when hungry. And make sure to eat before you get really hungry and to drink before you get really thirsty: the problem being that once you notice you are hungry you'll be tempted to eat too much too fast; once you notice you are thirsty, you'll drink too much.

Nourishing Inner Nature and Extending Life, 7th/8th centuries²⁰

As we saw above, eating less – as long as the diet is nutritionally complete – is probably the single most important dietary change we can make, potentially adding years to our life and reducing the risk of developing many chronic diseases associated with ageing. However, as *Nourishing Inner Nature and Extending Life* points out, taking anything to an extreme can easily lead to an equal and opposite reaction.

Eating at regular times of the day

Taking meals at fixed times can keep the body free from suffering.

The Annals of Lu Buwei, 3rd century BCE⁵³

While there is a lot to be said for spontaneity, in terms of bodily functions, regularity and habit are preferable. Our digestive system gets used to eating at the same time every day and this is reflected in many traditional cultures (for example France) in an almost religious adherence to fixed meal times. Eating at regularly spaced intervals is also kind to our hard-working digestion, allowing sufficient time to process a meal before starting all over again. For that reason, especially if we have digestive problems or are trying to control weight, it is best to avoid snacking. The difficulty with snacking is that once started, it is very hard to stop. Sometimes clear rules are the easiest to follow and a simple one that can be very helpful is never to eat between meals.⁵⁴

Sitting down to eat

Sitting down and focusing on our food - rather than standing, walking in the street or driving in the car - helps us to be calm and centred when we eat, and this encourages good digestion⁵⁵. Some of the older, restrictive social habits we threw out with a sigh of relief in the modern age encapsulated valuable folk wisdom. In Victorian times, for example, children were not allowed to leave the table without permission, reflecting the benefits (for all of us, not just children) of remaining sitting for a while after a meal, rather than springing back into action. Similarly, while the saying of grace before a meal is principally observed as a religious practice, it has the secondary function of stilling the mind and helping it turn away from the busyness of the day towards the serious business of eating.

Eating when relaxed and peaceful

Good digestion is helped by eating when we are calm and relaxed. We should especially avoid eating when angry, stressed, rushed, absorbed in business discussions or working on a computer at our desks. Along with eating late in the evening (see below), eating when upset or stressed - especially if it is a regular occurrence - is one of the most common causes of digestive disorders. It would be nice to believe that the family dinner table is an oasis of peace and love but this is often not the case. Resentment, frustration, impatience, arguments - all interfere with digestion. Trying to eat at the same time as small children can also disrupt any chance of a harmonious meal and it might be better to delay eating until they have gone to bed, even if it means eating later than desired.

Eating slowly and chewing thoroughly

It takes quite a while (said to be between 15 and 20 minutes) after starting to eat before we feel full. That means that if we eat too fast, we are likely to eat more than we need to satisfy

ourselves by the time our brains receive the message that we have eaten enough (or are indeed uncomfortably full). The remedy is to eat slowly and chew our food well. Ample research shows that eating fast can nearly triple the risk of developing type 2 diabetes, and can contribute to obesity, while eating slowly results in a reduction in the amount eaten at a meal and can help people lose weight.⁵⁶⁻⁵⁸ Chewing food more thoroughly may also make it more digestible.⁵⁹

Eating most of our daily food earlier in the day and especially avoiding large meals close to bedtime

Yang qi is swelling at noon and deficient at sunset; therefore more food should be taken for breakfast and less food for supper, and at night it is necessary to keep the stomach empty.

Common Sayings in Gerontology, Cao Tingdong, 1699-1785⁶⁰

In the view of traditional Chinese philosophy, the microcosm of the human body mirrors the macrocosmic universe we live in. The great cycle of day and night is therefore reflected in our body rhythms. In the deep, cool, dark quiet of night - the time of maximum yin - body metabolism is also resting, while the rising of yang at dawn through to its peak at bright, warm and active midday is reflected in increased metabolic activity.

Traditional Chinese health advice, therefore, is to eat a good breakfast (in some cultures this is the largest meal of the day) and a good-sized lunch, both times when the digestion is at its most efficient, with relatively less food taken later in the day. Above all, we should not eat late in the evening - ideally no fewer than three hours before going to bed.

Night, the time of maximum yin, is when the body rests. Lying down, passive and inactive, our digestion also slows down. Food sitting in the stomach is poorly digested through the night and the resulting food stagnation means we still feel full in the morning and may be unable to face breakfast. If the habit of eating late continues, food stagnation can become chronic, leading to bloating, fullness and discomfort. According to Chinese medicine, any prolonged stagnation can give rise to heat (inflammation). In the stomach this can develop into chronic indigestion and gradual impairment of digestive function.

Long-term food stagnation can also lead to what is known as 'dampness' or 'phlegm' (see Glossary). As well as contributing to many different disorders, common symptoms of phlegm and dampness include feelings of weightiness and fatigue in the body, a tendency to put on weight easily, thick-headedness, sleepiness and difficulty in concentrating (especially in the mornings).

The recognition that we should weight our eating towards the early part of the day is found in sayings from many different cultures. These include the Chinese, "Eat a hearty breakfast, a moderate lunch and a small supper", the English, "Breakfast like a king, lunch like a merchant and sup like a pauper," and the Jewish, "Eat your breakfast alone, share your lunch with a friend and give your supper to your enemy."

Quite a body of research now confirms what these traditions teach – that our metabolism functions more effectively in the morning and that breakfast is a key meal. A two-year study of the breakfast habits of nearly seven thousand UK citizens found that those who ate the largest breakfast put on the least weight over the course of the study, even though their overall daily calorie consumption was greater.⁶¹ The authors conclude that, “Redistribution of daily energy intake, so that more energy is consumed at breakfast and less energy is consumed later in the day, may help to reduce weight gain in middle-aged adults.”

A 2004 study confirmed that food consumed in the morning is more satisfying and can reduce overall daily calorie consumption, while food taken in the evening does not satisfy as much and leads to greater overall daily intake.⁶² A later study by the same author found that if more carbohydrate is eaten at breakfast, then less carbohydrate is eaten during the rest of the day, with the same association for both fats and protein.⁶³ A review of 47 studies into breakfast habits found that children and young people who ate breakfast were less likely to be overweight (despite eating more calories overall during the day) and had better test grades.⁶⁴

By contrast, eating most of one’s daily food in the evening or at night is associated with greater obesity, binge eating and psychological distress.⁶⁵

A study of women suffering from polycystic ovary syndrome (which can affect up to ten per cent of women of reproductive age) found that when they ate over half of their allowed 1,800 calories a day at breakfast, they began to ovulate more regularly and demonstrated reduced resistance to insulin and testosterone. A comparison group who ate their main meal in the evening showed no change.⁶⁶

Taking a stroll after eating, especially in the evening

Walk a hundred paces after a meal and one can live ninety-nine years.
Chinese saying

Eating to satiation and then lying down causes the hundred diseases, including indigestion and energetic blockages.
Nourishing Inner Nature and Extending Life, 7th/8th centuries²⁰

The Dao of nourishing inner nature is to avoid eating to satiation, followed by lying down or extended sitting day after day. These actions diminish longevity ... After eating go for a walk or a leisurely stroll – that will assist cultivation.
Nourishing Inner Nature and Extending Life, 7th/8th centuries²⁰

The advice to move the body after eating is especially appropriate after an evening meal. As we saw above, digestion is a yang activity and becomes more sluggish as yin night approaches. Movement (yang) in the form of a short walk or other light exercise, helps promote the

necessary activity required for digestion. A study conducted in Japan found that light exercise after a high fat meal reduced levels of blood fats significantly more than similar exercise taken before the meal.⁶⁷ Yet in keeping with the advice to sit for a while at the table at the end of the meal, of course we shouldn't jump up and rush around, and the word 'stroll' is probably key.

Drinking during meals

Other than at feasts (where in my experience copious amounts of alcohol are consumed), drinking during meals is not generally favoured in Chinese dietary culture. This especially applies to cold drinks, which are thought to chill and slow down the digestion. Soup or tea may be taken before the meal to prepare the stomach, and then tea is drunk again at the end of the meal ('to help dissolve the fats').

On dieting, diets and weight loss

Hundreds of millions of people are on, or are considering, a weight loss diet at any one time. Yet despite a multi-billion dollar weight loss industry, the evidence shows that by and large dieting simply doesn't work. A 2007 analysis of 31 long-term studies concluded that, "there is little support for the notion that diets lead to lasting weight loss or health benefits."⁶⁸

In fact most people, on most diets, not only put any lost weight back on, but end up heavier than when they started, indeed heavier than controls who do not diet at all. One explanation is that diets seem to alter our reactions to food. For example a study that showed images of chocolate to 85 women, found that those who were either on a diet, or had dieted at some time in the past, experienced much higher levels of craving (accompanied by feelings of guilt, anxiety and depression) than those who had not.⁶⁹ This reaction may in part be due to the effect of dieting on hormones. An Australian study of dieters a full year after they had ended their diet, found persisting reductions in leptin (which regulates appetite) and rises in ghrelin (which stimulates appetite).⁷⁰

If dieting therefore leads to food obsession, cravings, depression and despair, what might be the answer to losing weight?

By and large it is down to 'diet' as opposed to 'dieting'. Dieting is an effortful practice that can rarely be maintained long-term. Diet is simply how and what we eat as a regular part of our lives. Of course this requires a change in eating habits, but it is a gradual, manageable and long-term change. If we follow the advice on regular eating and not eating to excess, and base our diet mostly on unrefined natural foods, as discussed in the following chapter, with very little sugar (sucrose, fructose, glucose, maltose etc.) then as time goes by we are likely to settle at a stable, healthy weight.

One growing area of research in the field of obesity concerns the microbiota – those non-human organisms that live in and on our human bodies. There is growing evidence that the microbiota in the gut play a role in how we process food and therefore how inclined we are to fatness and thinness. A healthy gut microbiota depends largely on diet, especially the

consumption of prebiotics in the form of indigestible carbohydrates (found in whole foods), and probiotics (found in fermented foods). For a longer discussion of the benefits of a healthy microbiota, see Appendix A.

Conclusion

This chapter has addressed the ‘how’ of eating because it is probably even more important than the ‘what’. It is even possible that if we follow the advice on regular eating given above, we may fare better, despite a poor quality diet, than if we eat the very best quality foods in a disordered and chaotic fashion. However, good eating habits allied to a balanced and nutritious choice of food are obviously the best of both worlds.

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- 54 I spent several years working in a natural food shop, packing nuts and dried fruit, baking bread, pies and flapjacks and so on. I fell into the habit of snacking all day long and after a while my digestion and self-esteem (because I couldn't stop) began to suffer. I would make daily resolutions, but within a few hours I would have slipped back. Then one day I decided on a simple rule - I would not take a single mouthful of food between my three meals a day, but would eat as much as I reasonably wanted during each meal and take full pleasure in it. I kept to this rule strictly for a long time and it cured me of any addiction to snacking.
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