Age UK is the new force combining Age Concern and Help the Aged. With almost 120 years of combined history to draw on, we are bringing together our talents, services and solutions to do more to enrich the lives of people in later life.

We have brought together leading experts in the field to create this authoritative guide to ageing better. We are grateful to all the contributors who gave their time freely to make this vision a reality.

Project editors: Professor James Goodwin and Phil Rossall
Improving later life.
These days, there's a huge amount of information available on how to age well and what to do to ensure a healthier and wealthier later life. Much of this advice is based on sound evidence, but much is confusing and often contradictory – what’s good for us one day can all too often be bad for us the next.

Age UK is committed to promoting research and giving clear and reliable advice on all aspects of ageing. So we asked over 20 of the world’s leading experts on ageing, including a wide range of eminent scientists and doctors, for their advice on ageing better. This has then been summarised in our top ten tips on ageing well.

Each chapter focuses on one of the most important aspects of ageing and gives the advice of the expert, in his or her own words, together with a summary of the evidence on which that advice is based.

*Improving Later Life* is intended to help you find a clear path through the welter of advice in the media on the subject of ageing well, and guide you to the best approach to take to enjoy your later life to the full.
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Preface

Giving a talk once, to an audience of varied ages, I mused on the Old Testament story of Moses leading the Children of Israel out of bondage in Egypt to wander for 40 years in the wilderness. The reason for the 40 years’ wandering, so we are led to believe, was not simply lack of GPS systems on their iPhones, but it was to ensure that neither Moses nor any of the generation that were part of the exodus from Egypt were to enter the promised land. The older members of society had to give way to a new generation that would embrace a new and different way of doing things.

Have we imbibed that Old Testament lesson too thoroughly, I wondered, and throw older people on the societal scrap heap? There is a case to be made that we have. If so, the evidence – as distinct from Bible stories – suggests that such absent mindedness, or worse, is unjustified. The older members of my audience, vigorous to a person, could not have agreed more.

Losing all useful functions is not an inevitable consequence of growing older. A varied pattern of health and function at older age was the striking finding to emerge from the first findings of the English Longitudinal Study of Ageing (ELSA). Not only is the timing of death variable, but so is life before death – it is anything but a uniformly depressing prospect.

Genes are not destiny
ELSA showed that at age 80 and above, 60 per cent of people described their health as good, very good or excellent. At age 80, 72 per cent of women and 80 per cent of men have no difficulty with walking at normal speed. Sixty per cent of people in their 80s have no difficulties with activities of daily living. What emerges is not a picture of uniform decline, but a strikingly varied picture. The big question is what one can do to be on the healthy side of this varied pattern. It is the question that is taken up by the chapters in this publication. Their answer is that a great deal can be done. Genes are not destiny. There may be genetic determinants of length and quality of life, but environment and behaviour matter too.

Some of the advice – stay active, physically, socially and intellectually, eat nutritiously – sounds like grandma’s wise words. But grandma said a lot of things, not all of which turned out to be true. One task for the research scientist is to discover which of grandma’s sayings are worth heeding.

A clear finding from ELSA, one that is not greatly emphasised in these chapters, is that a major determinant of both length and quality of life, is someone’s socio-economic position. Why that should be the case is a fertile area for research, but the differences are huge. People of high status decline in physical and intellectual function 12–15 years later than those of lower status. Some of the differences may be the result of the advice contained in these chapters being followed more assiduously by those in more favoured social and economic positions. But people’s ability to follow healthy practices is constrained by the circumstances in which they were born, grew, lived, worked, and aged. We need to pay attention to these circumstances so that the advice contained here, based on the best science, can be followed by all in society with great benefits in terms of healthy ageing.
The brighter side of life.

Professor Tom Kirkwood
CBE, FMedSci
My advice.
Don’t give in to fatalistic thinking about ageing.

Thinking positively about your body’s journey through life, feeding it with care and putting it through its paces can work wonders, even if your exercise regimen has to be adapted to take account of health problems, including disability. Being positive is great for mental health as well.

People often say that how long and healthily they will live is all determined by their genes. This leads to the fatalistic attitude that the body is programmed to age and die, driven by some inner biological clock. In fact, a lot of research has been done which shows that genetics accounts only for about a quarter of what determines the length of life, meaning that three-quarters is controlled by factors that are under individual control, such as nutrition and lifestyle.

Professor Tom Kirkwood
Tom Kirkwood directs the Institute for Ageing and Health at Newcastle University.
He is one of the world’s leading researchers into ageing.
He gave the BBC Reith Lectures in 2001 on ‘The End of Age’.
This compelling genetic evidence shows that the ageing process is considerably more flexible than used to be thought. In fact instead of bumping into some kind of ceiling, human life expectancy continues to increase at the rate of two or more years per decade, or an amazing five hours each day. At the same time, research into the biology of ageing shows that ageing is caused by the gradual lifelong accumulation of damage to cells and molecules. This accumulation can be made worse by living life the wrong way and more intriguingly made better by making the right lifestyle choices.

Understanding exactly what lifestyle and other choices make a difference will need a lot of further research. In the Newcastle 85+ Study, we are examining the health of very old people in unprecedented detail and trying to find what makes a difference to how health changes during the later years of life. The study approached everyone in Newcastle and North Tyneside born in 1921 and nearly three-quarters agreed to take part. The data are already throwing up some significant surprises, such as that 78 per cent of 85-year-olds rate their health as good, very good or excellent compared to others of the same age – a delightful statistical impossibility that overturns the general view that life in advanced old age is made miserable by poor health.

It is very important that research should examine in great detail how healthy lifestyle choices, for example, eating plenty of fresh fruit, vegetables and fish (such as in the Mediterranean or Japanese diets), or taking regular exercise, actually slows the accumulation of damage that causes ageing. This is scientifically challenging and requires extremely carefully designed research to help tease out individual contributions from multiple causes of ageing.
Thinking ahead.

Professor Ian J. Deary
BSc, MB, ChB, PhD (Edin), FRCPsych, FRCPE, FBA, FRSE, FMedSci
Not all thinking skills decline with age. Abilities like vocabulary and general knowledge hold up well as we grow older. Cognitive skills like making new memories, thinking quickly, reasoning with lots of new materials, and jumping from one mental task to another don’t age so well. So, on average in old age, be prepared to know more than younger people, but not to be as fast in working out new stuff quickly.

People differ in their thinking skills from early on in life. People also differ in how much age weathers their thinking skills: some people’s skills decline a lot and some not much at all as they grow older.

My team’s research focuses on the normal ageing process. We are interested in how thinking skills age in people who do not have dementia or other clinical brain disorders.

It was conducting research on the people who’d taken part in the Scottish Mental Surveys of 1932 and 1947 that brought home to me how different are people’s experiences of mental ageing. We have now studied a few thousand people in Scotland for whom there are data on their intelligence test scores (IQ) from age 11 and whom we have followed up in old age. We hope to find out those factors that helped to preserve some people’s thinking skills more than others.

What factors contribute to people’s relative cognitive strengths in old age? There is one big factor and many little ones. First, people with better thinking skills in old age tend to be those people who’ve always had better cognitive abilities; that’s the big factor. But, beyond that, we are interested in what factors contribute to one person’s cognition holding up better than other people’s, given a similar brain-power starting-point in youth. Opposite are some, but I emphasise strongly that these all make pretty small contributions, and emerged from the study of large groups of people.

These are just a few examples. Our research and that of others has found more of these small effects.

My advice.
Stay curious; stay fit; stay engaged; look behind you.

Thinking ahead.
Thinking ahead.

**Professor Ian J. Deary**

Ian Deary is Professor of Differential Psychology at the University of Edinburgh, and Director of the UK Research Councils-funded University of Edinburgh Centre for Cognitive Ageing and Cognitive Epidemiology. He leads a research team, core-funded by Age UK, conducting the Disconnected Mind Project, which includes the Lothian Birth Cohort 1936 study. He is medically qualified and has a PhD in psychology.

1. **Genes**
   For example, people who have a certain form of a gene that predisposes to dementia also tend, on average, to have slightly faster cognitive decline.

2. **Health**
   Avoiding illness, especially cardiovascular disease, can keep the brain thinking better.

3. **Brain health**
   People with fewer small scars (lesions) in the connections of the brain (white matter) tend to have relatively better thinking skills than those who have more lesions.

4. **Fitness**
   People with a stronger body (muscles and lungs, for example) than the average for their sex and height tend to have slightly better thinking skills.

5. **Lifestyle**
   Non-smokers tend to show a bit less mental decline than smokers.

The things about which I am asked most of all do not appear above: diet, mental engagement, and brain training. Researchers have not been able yet to sort out whether a good diet and brain training produce mental preservation in old age, or whether people whose mental skills were stronger in youth have always eaten better and done more of this mental work, and simply continue to do so in old age. However, even with that uncertainty, there are other reasons – better health and quality of life generally – for eating well and staying mentally curious and engaged.
Immune from it all.

Professor Janet M. Lord
PhD
As you age you become more susceptible to infections than young people and do not respond as well to vaccinations. This all suggests that the immune system does not function correctly in old age – termed immune-senescence. You can take steps to try to maintain a healthy immune system in older age.

**My advice.**

Keep physically active – aerobic exercise of 15–20 minutes per day improves immune function.

Maintain a healthy diet – omega-3 fish oils, vitamin C, vitamin D and zinc all help to maintain good immunity.

Be sociable – social isolation causes stress, which lowers immunity.
The immune system, the job of which is to fight infections, functions less well as we age. This results in higher levels of infection in older people, but there are also other effects. Vaccinations stimulate the immune system to create ‘immune memory’, so that if we are exposed to an infection, such as influenza, then we have antibodies that help fight the infection. In later life, vaccination works less well because of poorer immune responses. In addition, with age there is paradoxically an increase in immune hormones (inflammatory cytokines) in our blood. This increased inflammation, termed inflammaging, is linked to coronary heart disease, arthritis and dementia. The current best evidence shows that lifestyle changes are the best way to improve the immune system in old age.

The type of exercise that improves immunity is aerobic, that is it must make the adult increase their heart rate, breathing and induce sweating. What we do not yet know is how little exercise is required to get this beneficial effect. However, very recent studies in the US by Dr Elissa Epel, looking at the immune cells (lymphocytes) that are involved in the vaccination response, have shown that post-menopausal women who did some form of aerobic exercise for a total of 40 minutes over a three-day period, had ‘younger’ looking lymphocytes (specifically, they had longer telomeres!).

Diet is important in maintaining a good immune system. For example omega-3 fish oils have an anti-inflammatory effect and so can reduce inflammaging. Vitamin C, zinc and vitamin D are lowest in those older adults who have a high incidence of infections. A diet with a good fruit and vegetable content (beans are a good source of zinc) is beneficial. For vitamin D, which is produced in the skin in response to sunlight, making sure that you go outside for 20 minutes per day should ensure that enough vitamin D is produced. Some foodstuffs, such as margarine, milk and cereals, are also supplemented with vitamin D, which is involved in stimulating macrophages.

Social isolation might be caused by retirement, loss of a spouse or perhaps being isolated from the community by caring for a sick relative. Social isolation is a stress that suppresses immune cells involved in killing bacteria (neutrophils) and viruses (NK cells and lymphocytes). Many of the effects of stress are mediated by the production of the stress hormone cortisol. However, this effect of stress is most pronounced in older adults. Our research has indicated that this may be due to the fact that as we age we make less of a counter-stress hormone called DHEAS, which is able to increase immunity.
Our advice.
Look after your eyes.

The following areas are important in maintaining healthy eyes.

1. **Prevent injuries**
   Wear eye protection (wrap-around polycarbonate goggles) for home DIY and gardening (especially hammering and strimming).

2. **Prevention of periocular skin cancers**
   Wear sunglasses, sunscreen and wide-brimmed hats when outside in sunlight.

3. **Watch out for drug reactions**
   Certain drugs (e.g. steroid eyedrops) can cause serious eye problems – always read the label and drug information.

4. **Have regular eye check-ups**
   Have regular eye tests so that diseases such as glaucoma, which may require special tests of eye pressure and the field of vision, can be detected.

5. **Recognise the danger signals and seek urgent help**
   The lists on page 21 show you how to recognise the early signs that tell you when to seek professional help, and where to get that help.
Why is vision so important in later life?
Good visual function is one of the fundamental pillars of good quality of life as we age. Vision is the sense that we fear losing most as it underpins independent living, including the ability to drive, the prevention of falls and the maintenance of strong mental health.

What are the major causes of visual loss in later life?
Age-related macular degeneration (ARMD or AMD)
Many factors are important in helping to prevent ARMD, including:

- optimal diet and supplementation with:
  - antioxidant vitamins and minerals
    (vitamins A, C, E, beta-carotene, zinc, copper, selenium)
  - macular carotenoid pigments (lutein, zeathanthin)
  - omega-3 long-chain polyunsaturated fatty acids
- stopping smoking
- reduction of UV A and B exposure with tinted glasses
- reduction of weight and BMI.

Professor Peng Tee Khaw
Peng Tee Khaw is Professor of Glaucoma and Ocular Healing, and Consultant Ophthalmic Surgeon; Director of Research & Development, Moorfields Eye Hospital NHS Foundation Trust; Director, National Institute for Health Biomedical Research Centre for Ophthalmology, Moorfields Eye Hospital and UCL Institute of Ophthalmology, London; Programme Director, Eyes & Vision, UCL Partners Academic Health Science Centre.

Professor Peter Shah
Peter Shah is Consultant Ophthalmic Surgeon and Honorary Professor of Glaucoma; Director of Education (Eyes and Vision Theme) University College London Partners; Moorfields Eye Hospital NHS Trust, London; University Hospitals Birmingham NHS Trust; Birmingham & Midland Eye Centre; Centre for Health & Social Care Improvement, School of Health & Well-Being, University of Wolverhampton.
Cataract
Modern cataract surgery is very safe, but it is essential to seek urgent help if there is a sudden decrease in vision or increasing pain after surgery, as there may be an infection.

Glaucoma
The key to preventing glaucoma damage is early detection by opticians (especially if there is a strong family history of glaucoma).

Diabetic retinopathy
Good control of the blood sugar, blood pressure and cholesterol are essential to help prevent diabetic retinopathy (DR). All diabetics are entitled to regular community-based DR screening.

Uncorrected refractive errors
Regular optician checks are necessary to ensure that your vision is properly corrected with glasses as you age. Opticians can also screen for the important eye diseases.

Stroke
Between 50 and 80 per cent of people will suffer visual defects after a stroke. Good general health is extremely important for the eyes. Obesity, high BMI, high blood pressure, smoking, lack of exercise and high cholesterol all contribute to increased risk of stroke.

When should you seek urgent help?
Many eye diseases can be treated if you seek prompt medical attention. If you experience the following symptoms you should seek immediate help:

• sudden severe loss of vision
• intermittent loss of vision in one or both eyes lasting greater than five minutes (especially if you also have pain in your temples, scalp tenderness, pain in your tongue when you are eating or pain in your shoulders and hips)
• sudden onset double vision
• persistent severe pain in your eye
• flashes and floaters
• sudden onset distortion of central vision.

Where should you go for help?
Urgent help can be found at your local:

• general practitioner
• optometrist (optician)
• hospital eye department
• A&E department.
Avoiding a stroke.

Professor Dame Nancy Rothwell
DBE, BSc, PhD, DSc, FMedSci, FRS
My advice.
Ageing successfully depends on a balance between caution and enjoyment.

You should get regular health checks for the risk factors of stroke as there are many preventive treatments and you should act very quickly if the symptoms of stroke are seen.

Many factors that cause stroke can be avoided or treated – smoking, high blood pressure, diabetes, obesity.

Our research has shown that inflammation that is normally associated with diseases like rheumatism, bowel disease and skin disorders can cause a stroke and may make the outcome much worse. Interestingly, statins, designed to reduce cholesterol, actually reduce inflammation, so it’s important to determine whether you need to take them. Aspirin, also given to people at risk of stroke, can reduce inflammation.
Avoiding a stroke.

The primary cause of a stroke is fatty deposits in our arteries (atherosclerosis). This is the same process that causes a heart attack, and stroke has often been called a ‘brain attack’. The devastating events are the same in the heart and the brain. The fatty deposits in arteries are packed full of immune cells that spew out inflammatory molecules and can cause havoc.

We have identified a protein (called IL-1, which is short for interleukin-1) that causes inflammation and that may trigger a stroke when it is produced in patients who are already at risk. IL-1 can be a good protein in helping us to combat infection, but it is also a key culprit in many inflammatory diseases like rheumatism. We also think that IL-1 makes the aftermath of a stroke worse. We are testing a natural blocker of this protein in patients. It seems to be safe and, so far, the indications are that it could be helpful in treating stroke patients if given early – and possibly even in preventing stroke.

We hope that within the next few years we will be much better at identifying those people that are at greatest risk of stroke. We are also hopeful that our ongoing research may help us to develop new treatments for stroke and related conditions that might reduce its devastating effects and perhaps limit the chances of further strokes occurring.
Make no bones about it.

Professor Tim Skerry
BVet Med, FRCVS, Cert SAO, PhD
My advice.

Keep your skeleton healthy to avoid fractures. Exercise strengthens bones so that they are less likely to fracture.

Even gentle exercise that has little effect on bones will increase balance, co-ordination and strength, thus reducing the chance of falls and their severity. Exercise for short periods each day rather than for long periods infrequently.

20–30 minutes of exercise per day are more effective than long durations once or twice a week.

Professor Tim Skerry

Tim Skerry graduated as a veterinarian in 1980 and spent several years in clinical practice, before moving into research on the way the skeleton responds to exercise, which has been the focus of his work for over 20 years. Tim is Professor of Orthopaedic Biology at the University of Sheffield and chairs the Research Advisory Committee of Age UK.
We are all aware that if we exercise, our muscles get stronger and visibly larger too. It is sensible that the skeleton and other parts of the musculoskeletal system adapt to increased use, or they would risk damage by stronger muscles after a period of training. What is remarkable is the degree of difference exercise can make to bones. Professional tennis players who began training before they were 18 and have trained for five years or more, have around 30 per cent more bone in their dominant serving arm bones than the less used non-dominant arm.

Few of us train as hard as such elite athletes, but there is no doubt that more normal levels of exercise during growth provide a potent influence to grow a strong skeleton. After about 30 years, bone is lost from the skeleton at a rate of about 1 per cent per decade except in women around the time of menopause when that loss increases to as high as 1 per cent per year for between five and ten years. This means that as the lifespan of the population increases, we will expect to live for a longer period during which we will have substantially less bone in our skeletons than we had in youth, posing a significant risk for fracture.

Studies of the effects of exercise are difficult because it is hard to get appropriate groups of similar people. But laboratory and clinical research shows that even in older people, exercise is still a potent stimulus for strengthening bone, or reducing its propensity to become weaker.

This raises important questions such as: what sort of exercise to do; how long to perform it; and how often to exercise. Vigorous running and ball-hitting sports are more potent than gentler exercises like swimming and cycling, but they have a greater risk of falls or injury to joints or muscles, so it is important to balance the risk of injury with the potential benefits. However, even gentle exercises increase muscle strength and co-ordination, providing benefits in improving balance and the ability to grasp a support if you do slip or fall. Short durations of exercise of 20–30 minutes per day are more effective than long durations once or twice a week.

Research has in the past focused on drugs to prevent bone loss, but now there are ways to increase bone mass after it has been lost. In addition to drugs, it is possible that vibrating platforms may provide the benefits of exercise without the risks or the exertion, so that even people with relatively frail bones or other illness can reduce their chances of fracture.
Protect the skin you’re in.

Professor Chris Griffiths
BSc, MB, BS, MD, FRCP, FRCPE, FRCPath, FMedSci
Skin ageing takes two distinct forms: (1) intrinsic ageing, a consequence of the passage of time, occurs in everyone, and is seen in its purest state in skin protected from the sun; and (2) photo-ageing, a consequence of environmental factors, mainly sunlight but also smoking. This is sometimes referred to as premature ageing.

If one compares the sun-protected skin of the inner forearm with the sun-exposed outer aspect, the differences are stark. The majority of wrinkles and all age spots, correctly known as actinic lentigines, are due to chronic sun exposure. Thus, they occur most commonly on sun-exposed sites such as the backs of the hands and on the face. Intrinsically aged skin is relatively smooth with only a few fine wrinkles, and does not deteriorate until more than 80 years old. Intrinsic ageing of the skin can lead to changes in function, particularly loss of immune response, thereby increasing the risk of skin infection and skin cancer (compounded by sun exposure). One of the very few advantages of aged skin is that although wounds heal more slowly they heal with better scars, i.e. more cosmetically acceptable, than young skin, which heals fast but at the expense of cosmetic appearance.

My advice.
Avoid excessive exposure to the sun and use sunscreen to maintain youthful skin and to prevent the development of features of ageing such as wrinkles.
Research indicates that the biological mechanisms that underlie photo-ageing and intrinsic ageing are similar, although in the case of the former they are accelerated. Skin loses its elasticity and tensile strength with age and photo-ageing due to loss of collagen and elastic tissue, particularly fibrillin. This is the result of release of enzymes in skin, which in turn break down these proteins, leading to wrinkling. Evidence suggests that smoking produces similar effects by increasing breakdown of elastic tissue – this can be seen in skin that is not sun-exposed.

Most people who seek advice about the treatment of features of aged skin are in fact concerned about the effects of sun exposure. Treatment is aimed at prevention and thus simple advice is to limit sun exposure, particularly in individuals who have fair, easily sunburned skin, and to use high-factor sunscreens, which protect against both ultraviolet B and ultraviolet A. These should be applied prior to sun exposure and regularly throughout the day. These simple measures, in addition to not smoking, can significantly preserve the features of youthful skin without recourse to cosmetic surgery. The only class of medical agents that has been shown categorically to improve the features of photo-aged and intrinsically aged skin are vitamin A derivatives known as retinoids. These are applied as a cream. There is emerging evidence that some over-the-counter cosmetic anti-ageing products may have some benefit in this regard.

Understanding the molecular mechanisms of skin ageing provides insight into potential repair agents and prevention, and also into the effects of age on less accessible organs that have significant quantities of collagen and elastic tissue, such as the lungs.
Use it or lose it.

Professor Di Newham
PhD, FCSP
My advice.

It is never too late to start strengthening your muscles. A little extra strength can make a big difference to what you can do. For our muscles, it’s a case of ‘Use it or lose it’.

As we get older, our muscles become weaker and smaller. Not surprisingly, this affects physical performance and makes everyday activities harder to do. More surprising to many of us is the fact that the decline starts at about the age of 30, although it rarely becomes noticeable until much later in life.

However, it is not all bad news and it is important to remember that the muscles of older people are just as capable of responding to exercise as those of younger people and that the same types of exercise are effective. Stronger and better-trained muscles mean better functional ability and there is the additional benefit that exercise is effective in helping to prevent a number of diseases often associated with later life, such as heart attacks, strokes and cancers.

Professor Di Newham
Di Newham is Professor of Physiotherapy at King’s College London. Her research is on the function and control of human muscle with a particular interest in ageing and rehabilitation.
All activities, even the most simple such as standing up from a chair, require a certain amount of muscle strength. If your strength is less than this, you simply won't be able to do the activity, so there is a critical level of strength needed for everything. The closer you are to this critical level, the more tiring the activity will be and the more slowly you will do it. A small increase in strength will make things easier and be able to be done faster. In practical terms, exercise and maintaining or increasing muscle strength can ‘buy back’ years of independence.

One of the worrying things about ageing is that the risk of falling increases. Stronger people are less likely to fall if they lose their balance; if they do fall they find it easier to get up again and are less likely to be injured than someone who has weaker muscles. There are well-established exercise programmes that increase muscle strength and also reduce the risk of falling as well as being injured if a fall should happen.

We all know that exercise can increase muscle strength and our ability to function. It’s easy to think that not doing any exercise doesn’t matter, but this isn’t true. A lack of exercise clearly causes muscles to get weaker and this is best shown when young healthy astronauts lose a lot of bone and muscle strength after being weightless when in space. A more common example is that when people don’t use their muscles they get weaker, for example, by staying in bed or spending most of the time sitting and not moving much. Such immobility and a lack of muscle affects people of all ages, but older people lose muscle strength more than younger ones when they don’t use their muscles.

Many people think that ‘taking it easy’ is good for older people, but the opposite is true and maintaining, or even better improving, physical activity is essential. It is clear that as far as muscle strength and physical activity is concerned, the old saying is true – ‘if you don’t use it, you lose it’!
A step in the right direction.

Dr Richard A. Ferguson
BSc, MPhil, PhD

Professor Myra A. Nimmo
BSc, PhD
Our advice.
To be healthy in later life, you need to take exercise. You can take exercise at any age but it must be relevant for your current activity level and age group. If you haven’t been taking exercise, it is not too late to start, but start slowly and build up gradually.

The age-related decline in function of our systems (e.g. cardiovascular, immune, skeletal muscle and bone) have profound effects on our capability to live in good health and with a good quality of life. However, physical activity provides important health benefits for older adults.
There is a significant amount of evidence supporting the health benefits of regular moderate-intensity aerobic physical activity, showing that this will reduce the risk of cardiovascular disease, stroke, high blood pressure, diabetes, osteoporosis, colon and breast cancer, and depression. There is also substantial evidence that regular physical activity, in the form of muscle-strengthening, flexibility and balance activities, can reduce the risk of falls.

However, it is important that you first assess your own individual exercise abilities and just gently increase the amount of exercise you take progressively and consistently over time. In fact, there is evidence to suggest that short bouts of physical activity of at least ten minutes will have health benefits. This may be a more achievable goal in later life and may help in building up to the recommended levels of physical activity. In fact, for some people in later life, it may be possible to achieve the level of physical activity through daily activities such as walking up and down stairs or gardening.

So how do you know what is the right level for you? New Physical Activity guidelines for the UK have been developed, including specific guidelines for older people. These will be published in the summer of 2011 and will contain guidelines from experts on communications, psychosocial behaviour, physiology, public health and epidemiology.

Dr Richard A. Ferguson
Richard A. Ferguson is a Senior Lecturer in Exercise Physiology in the School of Sport, Exercise and Health Sciences, Loughborough University. His research interests are skeletal muscle and peripheral vascular function and adaptations in older people and was a recipient of a Strategic Promotion of Ageing Research Capacity grant in 2006.

Professor Myra A. Nimmo
Myra A. Nimmo is Professor of Exercise Physiology and Head of School of Sport, Exercise and Health Sciences, Loughborough University. Her research interests lie in the interplay of exercise, inflammation and metabolism.
You are what you eat.

Dr Lisa Methven
BSc (Hons), PhD, FIFST

Dr Orla Kennedy
BSc (Hons), MSc, PhD, RD, RNutr, FIFST
You are what you eat.

Dr Lisa Methven
Lisa Methven is a lecturer in Food and Sensory Science at the University of Reading. She holds a research grant from Age UK (2008–12), focusing on reduction in malnutrition in older people by improved food palatability.

Dr Orla Kennedy
Orla Kennedy is a registered dietitian and lecturer in Public Health Nutrition at the University of Reading and is collaborating with Lisa to optimise foods and food choice with the aim of improving the nutritional status of different population groups.

Our advice.

Eat plenty of fruit and vegetables to help prevent constipation, coronary heart disease and cancer.

Avoid foods high in saturated fats, sugar and salt. Eat more foods rich in omega-3 fatty acids, such as oily fish, to keep your brain and heart healthy. As you grow older, the need for nutritious and tasty food often increases.

Minerals and vitamins are important in older adults at risk of undernutrition, vitamin supplements should be taken.

Nutrition influences health throughout the lifecycle; requirements are dynamic and change with age. Energy balance alters during ageing, from a tendency to increase in weight to a susceptibility to weight loss in older age.
You are what you eat.

Prevention of coronary heart disease (CHD), diabetes, digestive disorders, cancer, falls and cognitive decline are all important to ageing well. The key to this is maintaining a varied balanced diet, not smoking and remaining active. To find out more on how to do this, the eat-well plate and the eight healthy-eating guidelines (www.eatwell.gov.uk) are a good place to start.

Plenty of fruit and vegetables will supply fibre and micronutrients, helping to prevent constipation, CHD, cancer and improving bone health. Avoidance of high-fat and high-sugar foods helps to prevent obesity, which is linked to diabetes, stroke and CHD. Saturated fats and trans-fatty acids should be kept low and monounsaturated and polyunsaturated fats, particularly omega-3, increased. This can be achieved by selecting olive oil and oily fish and reducing full-fat milk products and fatty meat. The omega-3 fats may help reduce cognitive decline and improve heart health. Adequate supply of protein helps preserve skeletal muscle mass, decrease risk of falls and fractures. Salt intake should be limited as it is directly linked to blood pressure and is a risk factor for CHD.

Routine vitamin supplementation has not been shown to improve immune status in well-nourished people; however, undernourished older adults are likely to benefit. Vitamin D is important for adults not getting outdoors as it is essential for calcium absorption and low levels may also affect mood and cognition. Sources are fortified spreads and breakfast cereals, fish, eggs and meat. Calcium and overall energy intake must also remain adequate for bone health. Adequate supply of vitamin B12, from meat or yeast extracts, helps reduce risk of neurological problems.

Current research into plant phytochemicals highlights that colours in fruit (such as blueberries) may help prevent cognitive decline. There is increasing evidence of the benefits of pre- and probiotics on digestive health, relieving constipation and antibiotic-related diarrhoea.

Later in older age, increasing energy intake becomes important, because of the numerous causes of undernutrition. Two key physiological changes are decrease in sensory perception, and changes to gut hormone levels, which affect the appetite and satiety. Recent research has highlighted the greater extent of taste decline in older hospital patients in comparison to healthy older adults. The evidence supports the need for tastier food, without increased salt levels, as well as eating socially and preparing food near place of consumption. Further work is needed to determine whether zinc is sufficiently correlated to taste decline to warrant supplementation; and whether inflammation arising from illness has a direct effect on taste function. There is growing evidence that selenium has a positive effect on mood, which may affect total dietary intake. Further research is required in the areas of muscle mass, bone density, micronutrient supplementation in older people, and in the influence and gut hormone control in later life.
Sleep tight.

Professor Kevin Morgan
PhD
As we get older, our sleep patterns naturally change; if your sleep allows you to function properly the next day until you feel sleepy around bedtime, it’s probably enough.

**My advice.**

If you do have persistent problems getting to sleep or staying asleep at night, try the following.

Avoid or cut down on having daytime naps.

Don’t lie in bed trying to get to sleep.

Minimise the amount of time you spend in bed awake.

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**Professor Kevin Morgan**

Kevin Morgan is a psychologist whose research focuses on the origins and management of insomnia and related sleep disorders. He is Professor of Gerontology, and Director of the Clinical Sleep Research Unit, at Loughborough University.
Given this, it is, perhaps, unsurprising that surveys conducted throughout the world consistently show that insomnia (chronic difficulties in getting to sleep or staying asleep, which lead to daytime fatigue) is both most prevalent, and most persistent among older people. The evidence also shows that people with chronic insomnia tend to lack stamina, perform poorly at work and at home, generally report a lower enjoyment of life, and are substantially more likely (than people without insomnia) to become seriously depressed. Managing sleep and insomnia symptoms, therefore, is fundamental to healthy ageing.

Some people are particularly susceptible to sleep disturbances, and need to take greater care of their sleep patterns and habits throughout life. Others may find that after years of successfully coping with health difficulties or changing sleep quality, they eventually need help with their insomnia symptoms. The evidence from clinical trials shows that two approaches are effective. Hypnotic (sleeping) drugs are safe and effective in the shorter term, where symptoms are severe and need immediate treatment. These drugs cannot, however, be used long-term, since effects wear off over time, and dependency can become an additional problem.

Psychological approaches, which involve systematically changing habits, attitudes and sleep routines can, on the other hand, be effective in the longer term. Based on findings from sleep science, these ‘cognitive behavioural therapy’ (or CBT) approaches encourage ‘healthy’ sleepiness at bedtime and reduce time spent awake in bed. The evidence shows that CBT approaches deliver lasting benefits to over 70–80 per cent of treated patients, and that older age is no barrier to effectiveness.

Finally, both pharmacological and psychological approaches can be enhanced by ‘sleep hygiene’, self-help practices to promote better sleep (e.g. regular bedtime routines, reduced caffeine and fluid consumption in the evening, moderate alcohol use, etc.). Overall, chronic sleep problems should not be regarded as either an inevitable, or an acceptable part of normal ageing.
My advice.
Be positive about ageing. Challenge the negative messages about ageing that are spread by society. Find ways of being useful to others.

Many false beliefs about ageing exist. For example, it is widely believed that everybody loses their memory abilities when they become older. In fact, many older individuals retain or improve certain types of memory, such as for events and words.

This kind of negative age belief can harm older individuals' physical and mental health. In contrast, positive age beliefs can benefit older individuals' health. This is because negative age beliefs taken in from society can result in expecting bad health, which can lead to bad health; whereas, positive age beliefs can result in expecting good health, which can lead to good health.

Dr Becca Levy
Becca Levy, an Associate Professor at Yale University in the United States, has received national and international awards for her research on ageing health.
My research has shown that the benefits of positive age beliefs include better memory, walking with more confidence, steadier handwriting, and greater ability to deal with the stress that can cause heart problems. In other studies, I found that older individuals with positive age beliefs had better health and tended to live an average of seven-and-a-half years longer than older individuals with negative age beliefs.

Most older people have both positive and negative age beliefs. It is important to try to put more emphasis on the positive beliefs and less emphasis on the negative beliefs. There are various ways that this can be done.

First, it should be kept in mind that the ageing process is not simply the result of inevitable decline. Rather, age beliefs can influence the ageing process, and individuals can influence their age beliefs. My research shows that when older individuals realise that they have this control, it becomes more likely they will engage in good health practices that will enhance their lives.

Second, older individuals should not accept the negative messages about ageing that are spread by society. For instance, a road-crossing sign pictures older people as hunched over and using a walking stick. Another example is in television comedies and dramas that often present older people in an insulting way. I found that older individuals who have watched more television tend to have more negative beliefs about ageing. Awareness of negative ageing messages makes it easier to resist them, for it becomes less likely that they will be accepted without even realising it.

Third, my research shows that positive age beliefs are enhanced when older individuals find ways of feeling useful. There are many types of activity that provide a sense of feeling useful. These include helping your friends deal with their problems, or helping an organisation to meet the needs of your community. It is for each older individual to find his or her own way of making contributions that lead to a sense of being useful. That is, by making a contribution to the wellbeing of others, a contribution will be made to your own wellbeing.
Last orders?

Dr Alan Maryon-Davis
MSc (Soc Med), FFPH, FRCP, FFSEM, HonFRCGP
My advice.

Smoking – if you’re a smoker, giving up is by far the single most important step you can take to help protect your health. Even if you’ve smoked for decades, it’s still well worth stopping now. Contact your local NHS stop smoking service for free advice.

Drinking – alcohol is fine in moderation, but don’t let drinking get the upper hand. Keep within the recommended limits, including at least two alcohol-free days a week.
**Smoking**

In 1956, a study of 34,000 British doctors was one of the first to indicate the strong link between cigarette smoking and lung cancer, coronary heart disease, chronic lung disease and a number of other conditions in men. The more cigarettes smoked, the higher the risk. Subsequent research has shown that women smokers also face these dangers – as well as increased risk of cervical cancer, premature menopause and osteoporosis.

Although the nicotine in cigarette smoke is what people become addicted to, it’s the tar and carbon monoxide that do most of the damage. Smoking constricts the airways in the lungs, limits the ability of the blood to carry oxygen and inhibits the body’s tissue repair system. The result is lower physical fitness and stamina, and slower recovery after surgical operations.

The good news is that by giving up smoking you can lower your risk of getting these health problems, even if you’ve been smoking for most of your life. For example, the average lifelong smoker who stops smoking at the age of 50 can gain an extra six years of life. Stopping at 60 gains you an extra three years. And you can begin to feel the benefits straight away. You get less puffed climbing stairs, you get fewer chesty coughs, less phlegm, and your pulse rate and blood pressure improve. You can also save lots of money.

**Drinking**

Although we often think the big issue is binge-drinking among young people, there is growing evidence that steady tippling by older people at home is an even greater problem as far as health is concerned. People in this age group often make a regular habit of having wine or beer with their meal or while watching TV. Drinking becomes an everyday affair – unlike the binge-drinkers who usually confine their excesses to weekends. Recent surveys show that about 40 per cent of middle-aged drinkers are drinking on at least three days a week – twice the proportion of younger drinkers.

But although the daily home tippler may not feel particularly tiddly, nor that they’re drinking too much, they may nevertheless be getting through a worrying amount of alcohol, and this steady consumption can cause real damage to the liver, brain, blood vessels and other organs. The liver in particular needs at least two alcohol-free days each week to recover from the toxic effects of drink.
No time to lose.

Dr Ian Philp
CBE, MD, FRCP (Lon & Edin), FFPH (Hon)
My advice.
Bother your doctor. Report problems at an early stage to your GP for early diagnosis. Take advantage of screening programmes. Check with your doctor that you are up to date with your vaccines. Do not rush into long-term residential care.

As we age, we accumulate diseases and impairments that threaten our health, independence and wellbeing. Common conditions include deafness, depression, visual problems, arthritis, diabetes, osteoporosis, leg ulcers, falls and memory loss. Contrary to widespread belief, most old-age conditions, including all of the above, can be treated. Yet two-thirds of problems are not disclosed to patients’ general practitioners.
No time to lose.

Delays in diagnosis lead to unnecessary suffering, loss of independence, and increased need for hospital and/or long-term care services. Therefore older people should report problems at an early stage to their general practitioners. For example, falls are very common in old age. Most falls do not result in serious consequences, but are frightening. To prevent further falls, research suggests the need to review medicines, home environment, vision and exercise levels, with bone strength checked regularly.

Memory loss is also common. Early diagnosis of dementia improves long-term outcomes. GPs can refer to memory assessment services that will diagnose dementia or give reassurance.

Older people should also take advantage of screening programmes, to identify problems before symptoms arise. There is clear evidence of the benefits for screening for:

- cardiovascular risk: high blood pressure, irregular pulse, blood sugar, cholesterol
- cancer: breast, cervix, bowel.

These screening programmes target specific age groups where there is most evidence for cost-effectiveness. As new evidence emerges, the target age groups are continually revised, usually upwards. Currently in the UK, people in their 60s would be invited to take part in programmes for all the above, but any older person can request screening. All older people in reasonable health should use screening services.

Vaccination is also effective in preventing illness in old age. In the UK we have the highest uptake of influenza vaccination in the world, with about 75 per cent of the 65-plus population getting an annual flu jab. More could be done to improve uptake of vaccination against pneumonia. Further vaccines are being introduced to prevent other diseases such as shingles. Older people should check with their doctors that they are up to date with their vaccines.

Finally, if serious problems such as a stroke or a fractured hip occur, older people and their families should not rush into accepting the need for long-term residential care. A period of rehabilitation or active convalescence in a community setting overseen by an old age specialist team of doctors, nurses and therapists has been shown to improve outcomes for all patients and prevent the need for long-term care in up to a third.

Given the list of health problems that are common in old age, you could be forgiven for thinking, as did The Who, ‘I hope I die before I get old’. However, by using health services effectively, most people can expect to enjoy a healthy active life into late old age and, like Woody Allen, ‘to die young, at a very old age’.
Money matters.

Dr John Vorhaus
PhD
My advice.
Don’t overestimate your financial knowledge. Seek financial advice and guidance before difficulties emerge. You are most in need of financial advice immediately before and after retirement.

Dr John Vorhaus
John Vorhaus is a Reader in Education at the Institute of Education, University of London. He is Director of the Centre for Research on the Wider Benefits of Learning and Research Director at the National Research and Development Centre for adult literacy and numeracy.
The National Research and Development Centre for adult literacy and numeracy (NRDC) was commissioned by Help the Aged to improve the evidence base on the level, effectiveness and impact of financial education for older people.

The NRDC found that many older people are failing to seek advice and make changes that would benefit their financial wellbeing. They tend to overestimate their level of financial knowledge and confidence, and there is therefore often a need for financial education that potential beneficiaries are not aware of.

People felt that they needed more information and advice about: budgeting; getting the most from income; resolving problems and disputes; savings and investments; and planning ahead.

The least affluent older people would benefit from financial education to help them understand the budgeting process and everyday money management, banking processes in savings and investment, the use of credit, and providing safety and security.

The period immediately before and after retirement is a period when we are particularly in need of advice. People also went to those working in financial education and advice after retirement, when expenditure is higher than income and as a result of life events such as bereavement, loss of income, having to move house or sliding into debt.

So why do we not make more use of financial education services? There are numerous barriers preventing people in later life from accessing and using financial education services. Funding remains a major issue, as is lack of IT skills. Also, black and minority ethnic older people often report that insufficient access to help and advice in other languages remains a significant barrier for them.
Keep in touch.

Professor Alan Walker
DLitt, D Soc Sci (Hon), FRSA, AcSS
Hello

Hello
My advice.

Remain actively engaged with other people. Devote time to hobbies that interest you, even if you do them alone.

The research evidence is now overwhelming about what it is that determines the quality of later life for most people. Right up there, at the top, is not money or other material possessions (although they are important), but social relationships and social activities. When older people are asked what are the key elements of life quality, the ‘good things’ in their lives, it is invariably these social factors that are emphasised most.

Of course, this varies between individuals, depending on the size and composition of our social networks, the frequency of contact, how we stay in touch, geographical proximity, intimacy and prior history, but there is no denying the crucial importance of these networks.
In some stressful situations, such as poor housing, poverty or racial discrimination social support has been shown to act as a form of buffer. The family, in particular, can enhance the quality of life of someone who is disadvantaged or socially excluded.

It goes without saying, almost, that activity and mobility are highly prized by most older people as the keys to an independent and meaningful life. This is underlined by the need for mobility in modern urban societies in order to gain access to widely dispersed amenities such as shopping centres. Not surprisingly, older people place the same importance as younger generations on being able to get out and about, but later life restrictions on mobility tend to make it even more significant.

Social relationships and activities are at the centre of a good quality of life in older age, alongside good health and mobility. These are regarded as more important than income. Interestingly, too, the research evidence shows that leisure activities and hobbies are important for quality of life, even if these are performed alone. Also older people suffering from ill health particularly value spending their time in meaningful activities; research has shown that this boosts morale and a feeling of wellbeing.

So if you want to enjoy a high quality of life in later life as well as remaining in good health, physically and mentally, it is vital to keep up or build afresh your social relationships beyond the family, to remain active and mobile and to engage in personally satisfying leisure activities or hobbies.
Feel right at home.

Professor Peter Lansley
BSc, MSc, PhD, MCIOB, FCOT
Home sweet home
My advice.
Don’t put up with struggling with everyday tasks. Think about making small changes to your home that can make your life easier as you get older. Get expert advice.

Why struggle with everyday tasks such as cooking, bathing and going up and down stairs? As we age, these things become more difficult, but there are ways of making your life easier. Some people decide to move to a more suitable home, but others adapt their homes or make use of ‘assistive technologies’.

Professor Peter Lansley
Peter Lansley is Professor of Construction Management, Director of KT-EQUAL, University of Reading.
Many people want to remain in their own homes, and the good news is that with sound advice many are able to achieve this. There are plenty of aids and devices, often called assistive technologies, to help make life easier. Modest changes can have a big impact: better external lighting, lever handles rather than door knobs, grab rails and raised plug sockets are but a few. Well-chosen decor can assist someone with declining eyesight. Visual alarms can help those with poor hearing. Then there are some very effective sensors and other electronic technologies that provide a range of support for individuals and their carers concerned about, say, falls or forgotten mealtimes.

Adapting the home can be complicated. Major building work, such as extending bathrooms to accommodate wheelchairs, installing level access showers and modifying kitchens can be very disruptive and expensive.

With all these options and new products coming on to the market all the time, it is wise to get expert advice, such as an assessment by an occupational therapist and guidance from a Housing Improvement Agency. There is also independent advice available on paying for these changes. Research from King’s College London and Reading University showed that adaptations and assistive technologies can be highly effective when they are properly matched to the user’s needs, reliable, and simple to use.

Adaptations and assistive technologies can help to reduce the need for support from others, say, for preparing meals and undertaking personal care, and equally they can supplement the care received and greatly improve quality of life. As well as improving quality of life, appropriate changes to the home can be the most cost-effective solution both for the individual and for the public purse. Many people prefer the independence and privacy that improving their own home can give them.
Invest in your future.

Mark Dampier
BA (Hons)
My advice.
Don’t ignore your pension. Alongside your house, it’s likely to be the most valuable pot of money you have.

Start saving as early as possible. On retirement, most people buy an annuity with the company they have been saving with, but this is nearly always the wrong thing to do. Shopping around for the best annuity can substantially increase the income you receive from your pension pot.

First the good news: life expectancy has increased dramatically over the last 50 years. Assuming that a couple are both healthy and 65 at the outset, there is a 50 per cent chance at least one of them will still be alive by age 95. There is also a 25 per cent chance that the woman will be alive by age 100.

But the bad news is: with longevity comes extra cost. If your retirement is going to be long, then the associated pension costs will be greater. So unless you are one of the very lucky people who work for the public sector and have an index-linked pension to look forward to, then providing for your old age is a huge task and something that most people ignore at their peril.

Mark Dampier
Mark Dampier is Head of Research at Hargreaves Lansdown. He holds a BA Honours Degree from Kingston University. He has been in the financial services industry since 1983 and was Investment Director at Whitechurch Securities and Churchill Investments. His articles are regularly seen in the financial press and he has also been on television and radio.
Invest in your future.

With interest rates at very low levels, you now need to accumulate a large sum of money to obtain a decent pension. To give you some idea: to secure a pension of £10,000 today, it would cost you £334,000 in 20 years' time, based on today's annuities and assuming an inflation rate of 3.1 per cent. To achieve this you need to save £750 a month, assuming growth of 5 per cent over a 20-year period. The earlier you start the better, as the same amount would cost you £375 over 30 years.

For those still working towards retirement in a private pension I would strongly recommend that you spend some time checking how well it is doing. The vast majority of people take little notice of where their funds are actually invested, yet investment performance is absolutely crucial. The better the performance, the bigger pot of money you will have on retirement. Private pensions have changed dramatically over the last ten years and, contrary to what you might expect, costs have generally reduced. In addition, Self Invested Personal Pensions (SIPPs) now enable you to invest in a much wider range of investments and allow you to invest in top-performing funds too.

Of those people coming up to retirement, most will buy an annuity. Few people realise that you have a choice of the type of annuity you take and also the actual provider. Sixty-eight per cent of people buying an annuity stick with the company they have been saving with, yet this is nearly always the wrong thing to do. It is quite possible to improve your pension income by 10–20 per cent by shopping around. If you are not in good health, it is possible to get an impaired annuity, which gives you an enhanced rate of return. For those with much larger pension pots, income drawdown allows the pension fund to stay invested, allowing you to draw down on the pension. This, however, comes with a clear investment risk, as your pot of money will be at the mercy of the stock markets, so this does take effective management, which on retirement you may not wish to do.

Considerable changes are afoot for pensions. The rule that says you have to buy an annuity at 75 has now been scrapped. The Government is trying to make private pensions more attractive, but many of the add-ons only help if you have saved sufficient money in the first place. The answer is to start saving as early as possible. A pension is merely a tax-efficient savings plan. Don’t be like the proverbial ostrich – keep your head out of the sand and spend some time and money on your pension. In many cases, it could be more valuable than your own house.
Love life.

Dr Malcolm Carruthers
MD, FRCPath, MRCGP
My advice.
Sex is an important part of the ‘dance of life’, so keep it up as long as you can, even if it means HRT for both him and her.

Medicines now make it possible for men to maintain their potency throughout life, so why not use them when needed? There’s never been a better time to keep on ‘dancing’, especially if it’s the Tango.

Supplement the advice of your GP with guidance from three charities in the field: www.bssm.org.uk, www.thebms.org.uk and www.andropause.org.uk
Sex is an important part of most relationships – not just the icing on the cake, but an integral part of the mix. It is natural, but not inevitable, for the frequency of intercourse to decrease as the relationship matures. This is very variable from couple to couple. Figures for normal or average levels vary widely, and most attention should be paid to the frequency that suits both partners. It is said that in the UK, couples have on average two-and-a-half children, and make love two-and-a-half times a week, but this meaningless average is probably an overestimate, even for young people. Interruptions due to pregnancy, and the sheer pressures of earning a living and bringing up children can all take their toll on the partners’ love lives, but it is important to try to find time and energy for this, say, once or twice a week at least.

About 40 per cent of men over the age of 40 notice a reduction in frequency of early-morning erections, or ‘morning glories’ in popular parlance. This may develop into erectile problems that make full intercourse difficult. Fortunately, for the last ten years or so, we have had drugs such as Viagra, Levitra and Cialis available, which can help many men back to full potency. Where these don’t work, and there are symptoms of the ‘male menopause’ or ‘andropause’ resulting from testosterone deficiency, then the possibility of testosterone replacement therapy (TRT) should be discussed with your GP or a doctor specialising in this field. The symptoms are characteristic, with ‘action man’ becoming ‘inaction man’: loss of sex drive, energy and enthusiasm; depression and irritability; and often night sweats and joint stiffness.

This identikit picture is generally a better way of detecting the condition than blood tests, since the body may be resistant to the action of even quite normal levels of testosterone in the blood and symptoms are usually relieved by this very safe form of hormone treatment. It is also being used to prevent and treat a wide range of serious medical conditions, such as diabetes, heart disease, and thinning of the bones or osteoporosis, making it an excellent form of preventive medicine.

The menopause in women, with similar symptoms, can also cause sexual problems, not only due the psychological factors of depression and irritability, combined with a crisis of confidence about attractiveness, but physical problems such as dry vagina, causing intercourse to be painful. Advice, counselling and simple remedies such as vaginal lubricants and oestrogen creams should be available from your GP, and perhaps combined with a discussion on Hormone Replacement Therapy (HRT) with a gynaecologist. This form of hormone treatment, often with oestrogens and progestogens combined, after a scare of few years ago from a badly designed and analysed American study, is now coming back into favour as its benefits are increasingly thought to outweigh its risks. Feeling better, looking better, with an improved sex life, and avoiding osteoporosis and risk of fractures, many hormonally recharged women are enjoying a healthier and more active sex life after the menopause than their mothers could before these advances in hormone treatment for both men and women.

If, as Billy Connolly would say, you’re ‘too old to die young’, you now have the choice between a sexually active, hormonally recharged life, or the chance of a few extra months in the nursing home. You choose.
Improving later life.

Top ten tips.

In the introduction, we referred to the common principles that underpin ageing well and which to a greater or lesser extent subsume all the advice given by our illustrious contributors. It is probably helpful and certainly interesting if we disaggregate these rules of ‘ageing well’ and collect together a ‘hit-list’ of top ten tips. These will not serve as a panacea for ageing but they will certainly help.

Here then are our top ten tips.
We hear these three pieces of advice often, and for good reason. As Tom Kirkwood points out in Chapter 1, about 75 per cent of our ageing is up to things under our control – our lifestyle. Not only do exercise, diet and smoking affect heart attacks, strokes and cancer, but our authors discuss how they affect our brains and thinking, immune system, vision, bone health and muscular strength – the last two being especially important for avoiding falls and remaining independent. Interestingly, there is evidence that subscribing to these rules raises telomerase in the body (known to be involved in slowing the ageing process) and potentially reduces the damage done to DNA from free radicals in the body.

These two pieces of advice are a bit more surprising, as far as affecting how well we age. But physiologists have known for many years that mind and body are indispensably linked. Not only can social activity and positive attitudes affect our mental wellbeing, but our authors show us that they also help to keep us physically healthy. Conversely, inordinate stress will have the opposite effect and is arguably one of the biggest risk factors common to the diseases of later life.
Six
Get regular health checkups.

Prevention, they say, is better than cure. But early diagnosis is often a life-saver, particularly with the ‘Big Four’ – Cancer, Cardiovascular Disease, Dementia and Obesity. Too often, we dismiss decline in health as simply ‘getting old’. But, as several of our authors tell us, this decline is not inevitable and we should get checked by health experts to have problems addressed, including issues with sex.

Seven
Protect your eyes.

Sensory decline (vision, hearing) is often accepted as just a fact of life as we age. There is some truth in this – ophthalmic practice has more older people as patients than almost any other branch of medicine. But we should get regular eye checks, because visual decline is not necessarily ‘normal’ or correctable. We should also protect our eyes from physical harm during any kind of physical work and from exposure to the sun. Diet is particularly helpful, particularly food that is rich in natural, coloured pigments that feed and maintain the retina.

Eight
Avoid excessive sun exposure.

Not only can over-exposure to the sun be bad for our eyes, but also for our skin. Up to 90 per cent of skin ageing is caused by sunlight. Dr Chris Griffiths, our dermatology expert, concludes that almost all the damage is both reversible and preventable. Including wrinkles!
The relationship between sleep and ageing is little appreciated by most of us. If diet, exercise, alcohol and smoking are the four major risk factors in modifying how we age, then sleep is the fifth. It is commonly treated by hypnotic drugs but it is well known, as Professor Morgan shows in this volume, that cognitive behavioural therapy can be used successfully to treat insomnia. We do tend to have more problems with sleep as we age. We should get expert help in managing these issues, because good sleep is vital for our health and mental wellbeing, affecting many of the metabolic processes involved in ageing.

Get sufficient, good-quality sleep.

As reported to Age UK, next to health, financial security is the second biggest worry to people as they age. So the advice given here by Mark Dampier, though not usually thought of in the context of ‘ageing well’, will be particularly welcome. Financial hardship not only damages our bank balance, it can materially affect our health and mental wellbeing.

Pay attention to your pension, and get expert financial advice.
To help you follow the advice of our experts, Age UK produces a range of free information guides in the areas of healthy living, money and benefits, home and care, legal issues, employment, retirement and leisure.

Each guide gives simple, practical and impartial information on issues that affect older people in later life. So whether you need the information for yourself or a relative, or you’re an adviser, our free guides will help you take the next step and make informed choices.

You may like to order the following:

• Healthy living
• Staying steady
• Health services
• Caring for your eyes
• Going into hospital
• Going solo
• Tax guide
• Managing your money
• Money matters
• Wills and estate planning

Call Age UK Advice on 0800 169 65 65 or visit www.ageuk.org.uk/publications to order your free guides.