

Borrowed Time (Bloomsbury Sigma) . Bloomsbury Publishing. Kindle Edition.  
Armstrong, Sue.

Sweeping survey of aging research. Bottom line: eat your veggies and get your exercise

Borrowed Time is a book about aging. Getting old. Each chapter talks about a different aspect of getting old or a different theory about how we age. Interestingly, all of the theories seem to build on one another.

The oldest theories have to do with free radicals and antioxidants. Those were once thought to be the holy Grail single answer for most of aging, but they are not. They nonetheless have a role to play.

Another theory has to do with telomeres – the tails on the DNA molecule that grow shorter every time a cell divides. When the telomeres finally exhaust cells, the cells are no longer able to divide and they must die. That's a simplistic explanation – there's more to it than that – but it's also part of the puzzle. Different types of the body's cells have very different lifecycles. Our nerve cells last all of our lives – they can't be replaced. On the other hand, blood cells and skin cells. Replace themselves constantly. Reproductive cells vary. A woman's egg cells are born with her – she gets no more. She has a lifetime supply at birth – but a man's sperm cells are constantly generated. Not topic of this book, but that's the reason that men are more subject to introduced mutations through the process of reproduction than women are.

She discusses various theories about living longer. People who eat less do live longer, though they are more susceptible to disease it appears. The fact that a healthy diet – fruits and vegetables – and lots of exercise are good for you is undisputed. Likewise undisputed are that cigarettes, alcohol, and even the micro pollutants that are part of city life are bad for you.

Armstrong doesn't deal with the moral question of what happens if the planet becomes overcrowded with old people. Will older people have children? Will older people hijack the resources needed for children to grow up? Will older people have anything meaningful to do in life? Those are the questions that interest me as an older guy.

As a description of what's going on in the realm of science the book is a five-star effort. Her table of contents, given here, is a very good guide.

Preface

Chapter 1: What is ageing?

Chapter 2: Wear and tear?

Chapter 3: Telomeres – measuring the lifetime of cells

Chapter 4: Cell senescence – down but not out

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Chapter 7: It's in the genes

Chapter 8: Eat less, live longer?

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Chapter 10: The immune system – the specialists take over

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Chapter 12: HIV/AIDS – adding insult to injury

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Chapter 17: Alzheimer's disease – the family that led the way

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Chapter 19: It's the environment, stupid

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