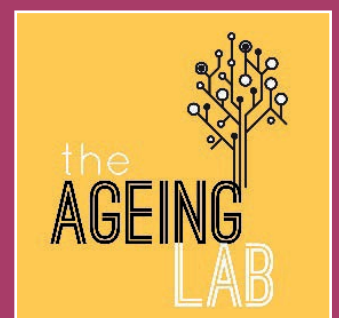




WHAT  
KEEPS YOU  
SHARP?

A national survey about  
what people in the UK think  
about their thinking skills!





# Introduction

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As we age, we may experience changes in our thinking and memory skills. We do not all experience these changes in the same way though: some of us might retain our thinking skills into later life while others might experience declines.

**What Keeps You Sharp?** was a national survey of people's beliefs and attitudes about how thinking skills change with age, and the factors that might affect those changes. Over 3000 people from across the UK took part, aged from 40 years old to over 90. This report summarises some of the main findings.

We present a selection of the key questions followed by the results from the survey. We have also tried to link the survey results summarising people's beliefs and attitudes to what some of the most recent research from other studies tells us.

We hope the findings are of interest, and help you to think about your own thinking skills, including what to do to keep them as sharp as possible.

If you'd like more information on anything in the report, you can contact the research team at

**HealthyAgeing@hw.ac.uk**

or visit our website

**[www.healthyageing.hw.ac.uk](http://www.healthyageing.hw.ac.uk)**.

And many thanks to all those who helped us explore **What Keeps You Sharp?**

**Dr Alan J. Gow**

Associate Professor,

Heriot-Watt University.

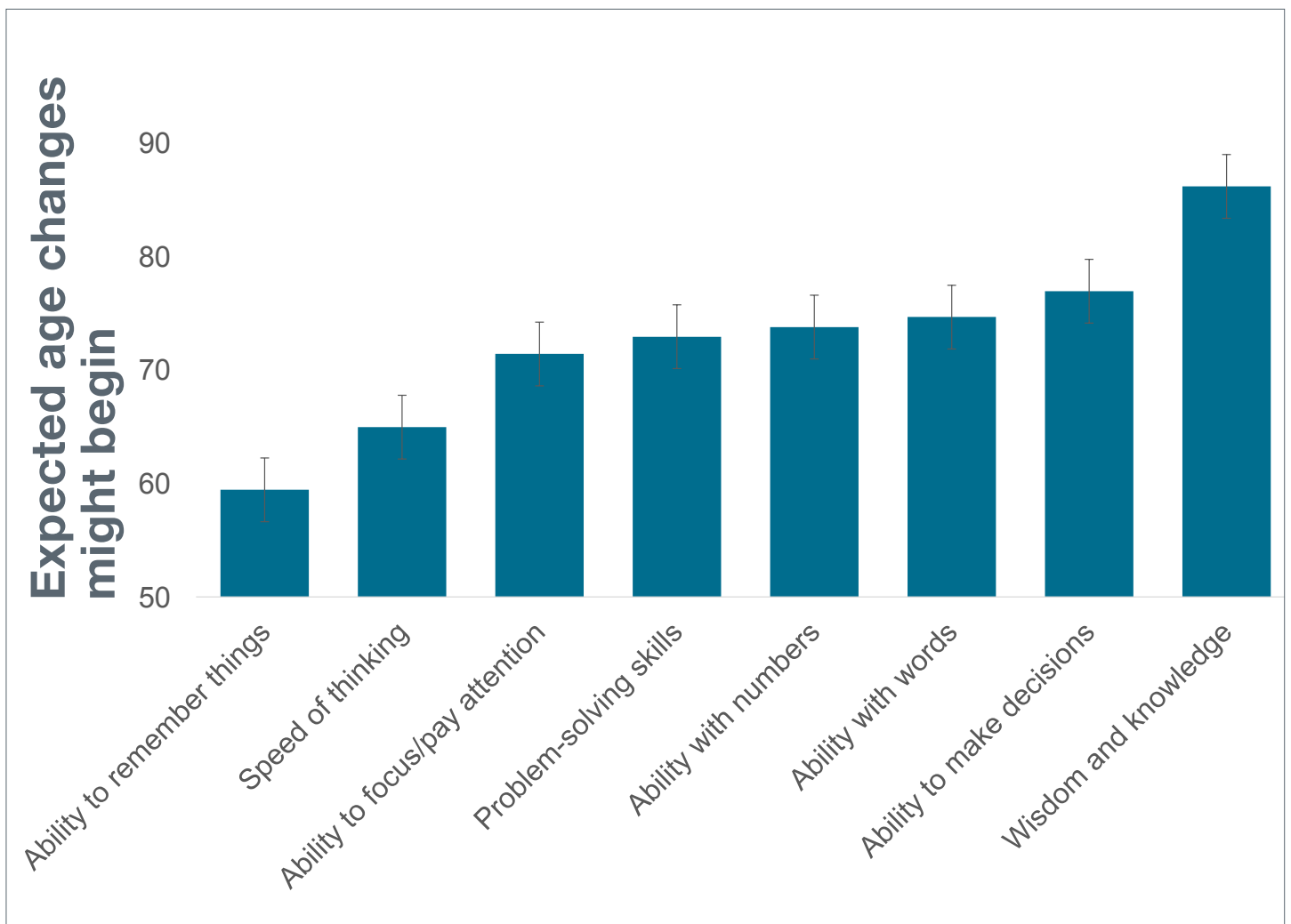
## How thinking skills change with age

When we refer to thinking skills, we mean a whole range of things including our ability to remember things and make decisions, solving problems and thinking creatively, how quickly we can react and take in information, to our word and number skills.

In the survey [details about how we conducted the survey are given at the end of the report], we gave people a list of thinking skills and asked when they thought those might start to change with age.

As you can see from the graph, people thought memory might be the thinking skill that would decline earliest, followed by speed of thinking.

At the other end, people expected our ability with words and our wisdom and knowledge would be the skills we might maintain for the longest time.



We also gave people the chance to say if they thought certain skills would never change with age. Consistent with the results above, most people thought memory would be affected by the ageing process; over 97% of the sample expected to see changes in their memory as they got older.

However, more than 40% thought wisdom and knowledge would never decline.

### **How do the survey results match other research?**

Memory is a skill we are particularly aware of, especially as we get older. It is therefore not surprising memory was the skill people thought might decline earliest.

Studies following large groups of people across many years have suggested that it might actually be our speed of thinking that is the first thinking skill to change. And those changes might begin in our early twenties!

However, those kinds of early changes are in contrast to many other skills that we continue to develop throughout midlife and beyond. Our word skills are a good example of something we are likely to retain better into later life.

The important thing to remember is that thinking skills cover a whole range of things, and while some changes might be expected, those will vary depending on the thinking skill we're considering. Another important point to keep in mind is that changes in thinking skills also differ from person to person.

Not only that, people might have different beliefs about when changes might start to occur. Who was more optimistic about the changes in thinking skills: Older or younger people? Men or women?

#### **REFERENCE**

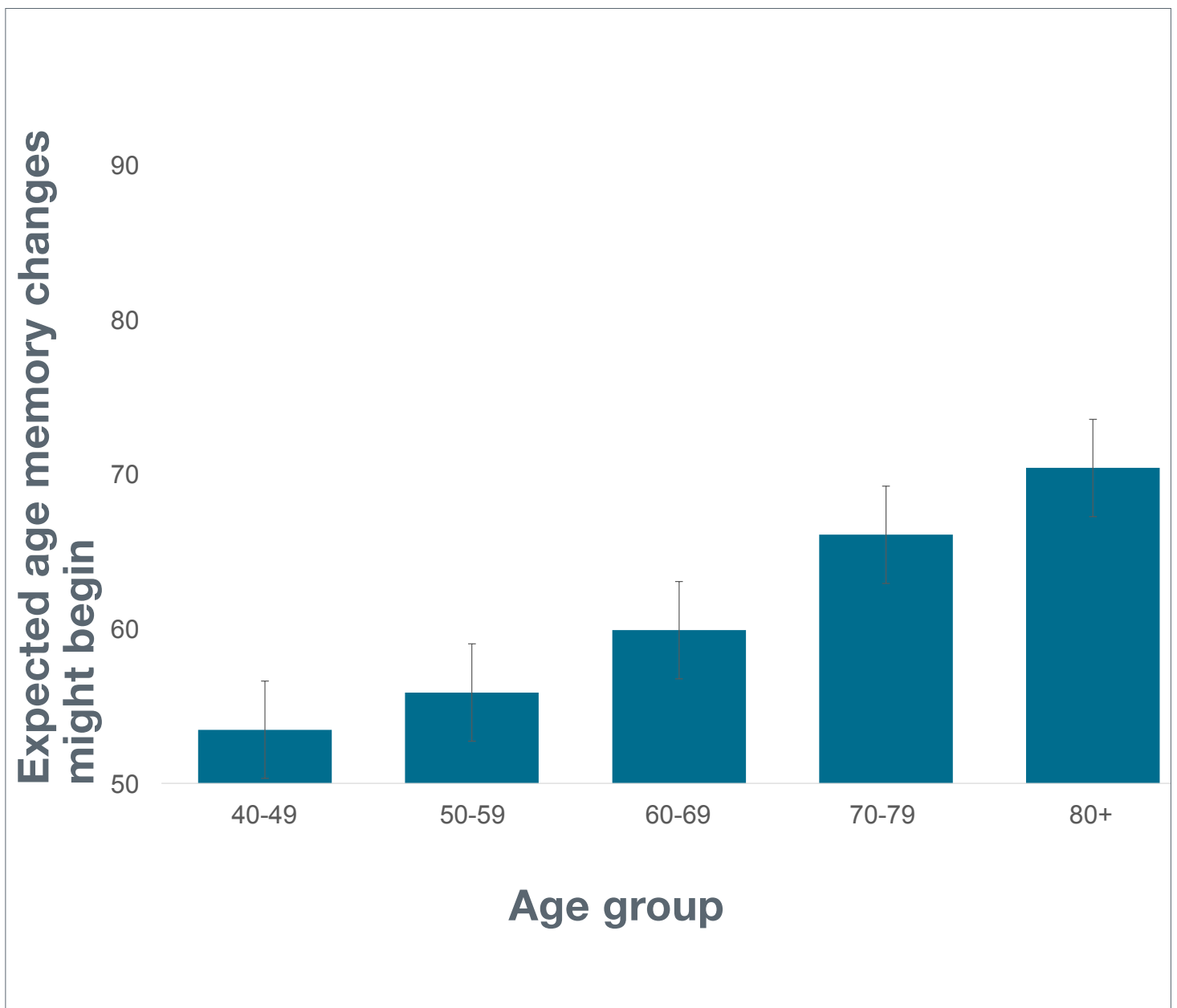
Hedden T. & Gabrieli, J. D. E. (2004). *Insights into the ageing mind: a view from cognitive neuroscience*. Nature Reviews Neuroscience, 5, 87–96. doi:10.1038/nrn1323

## Who was more optimistic about ageing?

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In our survey, we had over 3000 responses from people aged from 40 years old to over 90. That means we can compare what different age groups believe about changes in thinking skills.

When we looked at the ages people expected thinking skills to change, an interesting pattern emerged. For all thinking skills, the people in their 40s estimated that changes would start about 10-15 years earlier than people in their 70s or older. You can see an example in the graph below that shows the figures for memory.



Why might that be? There are a few possible reasons. Many of the younger people won't have experienced any changes, so perhaps they're having to guess, while the older people might have a better understanding from their own experience.

Of course, the older people who completed the survey might be quite different to the average population. Many took the survey online so we need to remember those people might have different backgrounds to those who didn't take part.

And what about the men versus women? First of all, there were no differences in the ages men and women thought memory or number skills might start to change.

Where there were differences, the men generally expected thinking skills to decline earlier than women, though most of these differences were quite small, only a few months to at most 3½ years.

That biggest difference was for wisdom and knowledge; while men thought those skills would start to decline about 83½ years old, women thought they would be retained until 87.

We need to be careful about taking too much from these patterns, but it is interesting nonetheless – older people and women were more optimistic about how long they might retain different kinds of thinking skills with age!

So, what might influence the changes we experience in thinking skills?

## Genes versus lifestyle...

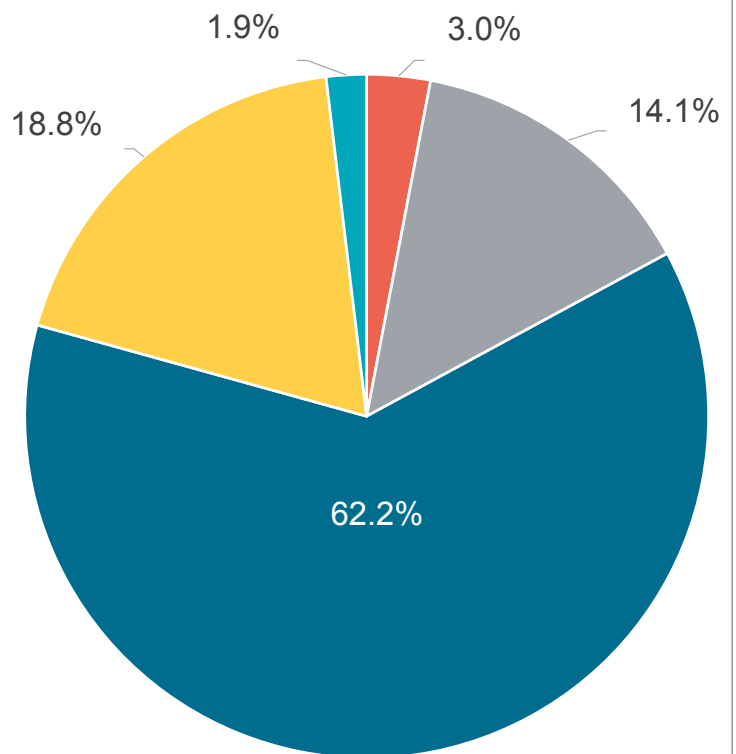
Our lifestyles often affect how healthy we are as we age. Lifestyles can cover a whole range of things, but might include what we eat and drink, the kind of activities we participate in or how physically active we are, to how much education we completed. Many health outcomes might also be influenced by our genes.

In the survey, we asked people how much the changes we experience in our thinking skills as we age are due to our lifestyles or genes.

As you can see, most people seemed to think it is likely to be about half-and-half.

### Changes we experience in our thinking skills as we age are...

- Entirely determined by our genes
- Mostly determined by our genes
- Probably about half determined by our genes and half determined by our lifestyle
- Mostly determined by our lifestyle
- Entirely determined by our lifestyle





## How do the survey results match other research?

In one big study of how genes might affect changes in thinking skills across the life course, the results suggested that maybe about 25% of the changes we experience were due to genes.

That result is interesting as it suggests the changes in our thinking skills might be more affected by our lifestyles (and also the environment and how our genes interact with those factors). In fact, our lifestyles might account for as much as 75% of the changes.

That's important because if our lifestyles have a role to play, these are the kinds of things we have more control of than our genes. If we know what those lifestyle factors are maybe we can do more (or less) of them to help our thinking skills as we age...but more on that later.

### REFERENCE

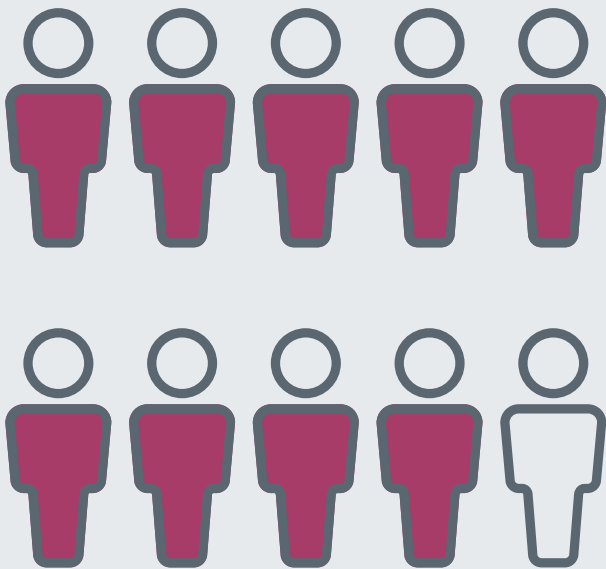
Deary, I. J. et al. (2012). *Genetic contributions to stability and change in intelligence from childhood to old age*. *Nature*, 482, 212–215. doi:10.1038/nature10781

## Are there things people can do to maintain or improve their thinking skills as they grow older?

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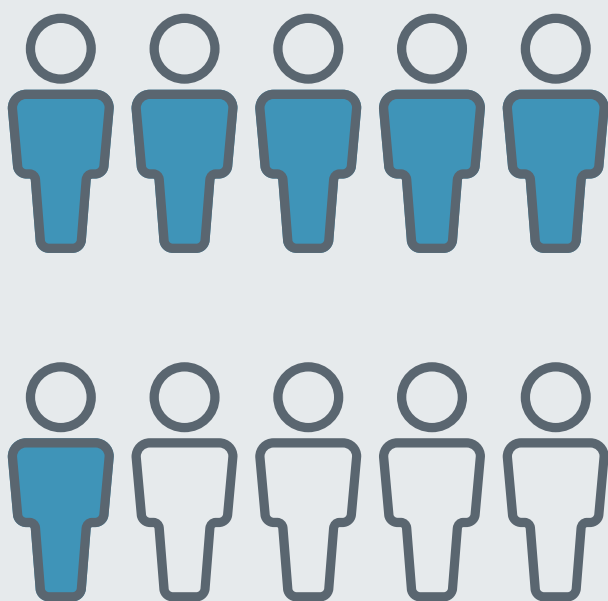
In our survey, almost 9 out of 10 people said they thought there are things people can do to maintain or improve their thinking skills.

**Almost 9 out of 10 people said they thought there are things people can do to maintain or improve their thinking skills with age.**



When we asked people if they knew what those things were, less than 6 in 10 were sure.

**Fewer than 6 out of 10 people were sure what things might be good for their thinking skills**



Both these results are important. As most people feel it is possible to maintain or improve thinking skills with age, that hopefully means they will be interested in what to do to keep their brain healthy as they grow older.

However, as people were less sure what the best things for keeping sharp were, it means we've got work to do in terms of communicating what the research tells us.

So, what do people think might be good for protecting thinking skills?

# What things might protect our thinking skills?

We gave people a long list of things that might be good for thinking skills. Those were taken from the kinds of things that have been explored in large research studies, or that people commonly believe might be good for thinking skills.

From that list, the top 5 things that people thought were best for thinking skills were:

- having a purpose in life (71% rated as very important)
- healthy eating (67% rated as very important)
- challenging the mind with games, puzzles, or other activities (67% rated as very important)
- sleep (66% rated as very important)
- physical activity (65% very important)



**71%**  
PURPOSE IN LIFE



**67%**  
HEALTHY EATING



**67%**  
CHALLENGING ACTIVITY



**66%**  
SLEEP



**65%**  
PHYSICAL ACTIVITY



## How do the survey results match other research?

For some of those lifestyle factors we have good evidence for them being protective of our thinking skills. For some of the others, the evidence is not quite as clear.

For example, research studies do seem to support being physically active as good for thinking skills. That evidence comes from studies looking at everything from walking behaviour to more intensive keep fit or exercise-type activities.

There is also a lot of research exploring how mentally challenging activities might be good for thinking skills and it is common to see puzzles and games being reported as beneficial. That area is a little bit more complicated though, as the people who do those challenging things might be those who've been better able to retain their thinking skills. While researchers continue to explore those questions, people are certainly encouraged to stay mentally active; if possible, taking up new and more varied activities appears to be most promising. For example, in our own lab we found benefits for some thinking skills when people with limited computing experience learned how to use a tablet computer in a class-based setting.

Other things that have some good support are getting enough sleep, to keeping socially engaged (or trying to reduce isolation and loneliness). Some studies have looked at how volunteering might be good for thinking skills as we age, for example.

The activities that might benefit our thinking skills could produce a very long list, and will likely be different for each person depending on their previous experiences. A key thing to remember is that there is no single answer. Like many things to do with health, it is important to try to do a range of things that might keep us physically, socially and mentally engaged. We hope all those things might be good for our brain health, and they are also the kinds of lifestyles linked to better quality of life too. In the end, each person will want to find those things that fit best into their routine and the things that are personally important, and at the same time are interesting enough to stick with.

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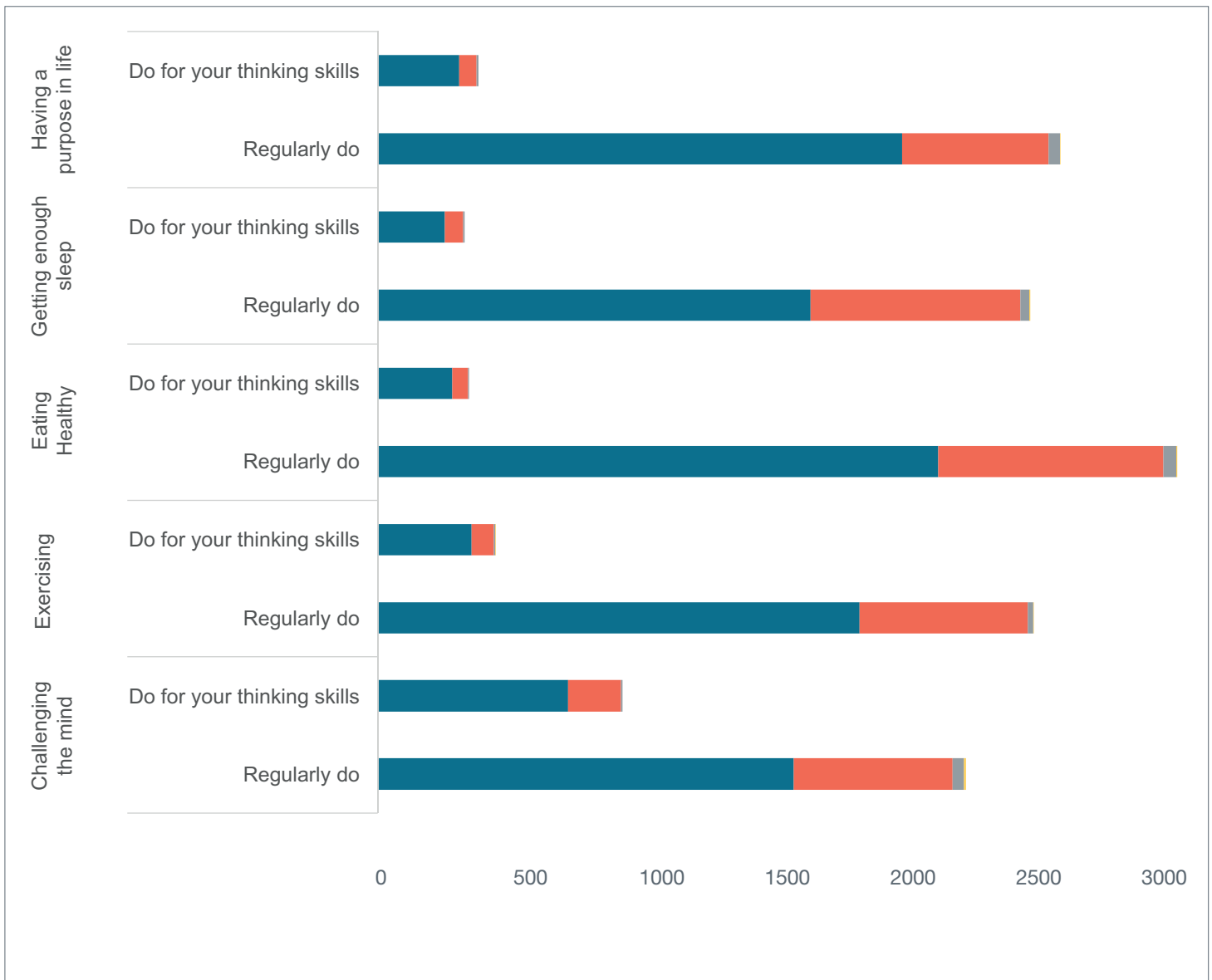
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Available at [www.GlobalCouncilOnBrainHealth.org](http://www.GlobalCouncilOnBrainHealth.org)

# How likely are we to do those things?

As well as asking people what things they thought might be best for protecting thinking skills, we also asked people how often they did them.

Here are the top 5 things again, but this time we're showing how many people reported doing them for maintaining their thinking skills:



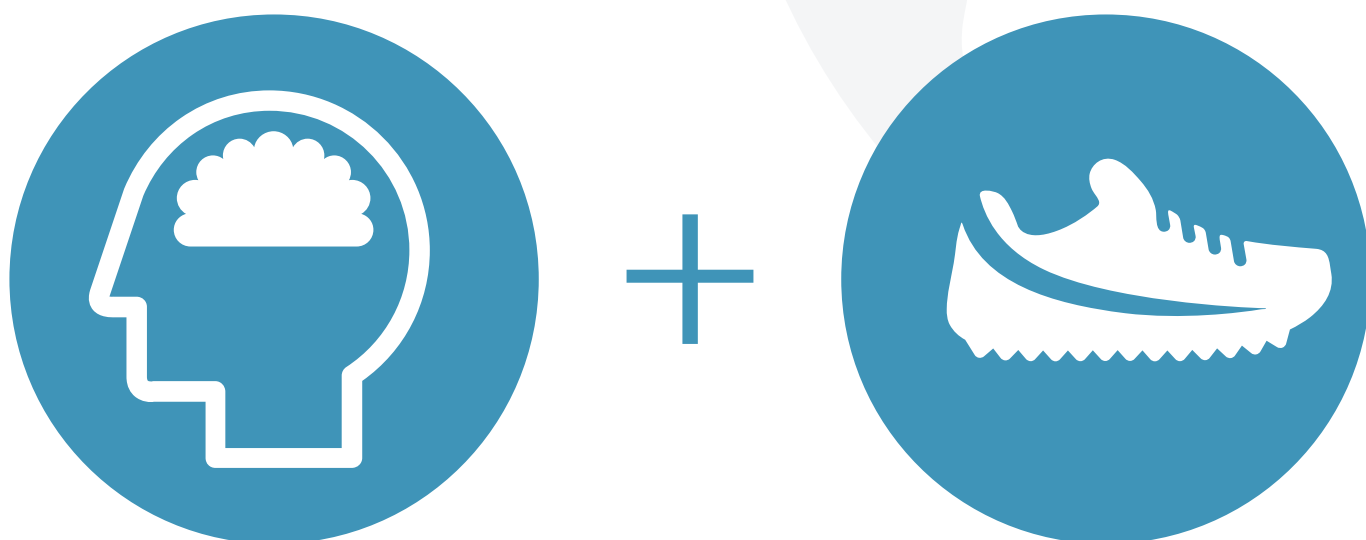
■ Very important  
 ■ Somewhat important  
 ■ Not very important  
 ■ Not at all important

As you can see, those top 5 things might have been rated as important for thinking skills, and people were often reporting doing them too but not usually because they might be good for thinking skills.

Again, as with many health factors, we often know the things that we should do more or less of, but taking that advice can sometimes be difficult.

If you're interested in getting a bit more active or engaged, then there are some resources at the end of the report that you might find useful. For many people, trying to be more active is made a bit easier when we do it with others.

Whatever you prefer though, have a think about the ways you might get a bit more physical activity in your day, meet other people, or challenge your mind.



## Where do we go for advice?

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For many of the health questions we have, it is quite clear where we'd go for advice: our GP is often our first point of contact. But what about when people have questions about their thinking skills; where do they turn for information?

In the survey, we found that people reported that they currently consult, or would consider using, the following sources:

- Doctor or other healthcare provider
- Books
- Internet web pages about the topic
- Family and friends
- Radio or TV

### The sources people would use for advice about their thinking skills included...



HEALTHCARE



BOOKS



FAMILY AND FRIENDS



INTERNET



RADIO



TV



And the places people said they'd never use for information about their thinking skills were:

- Social media or discussion boards
- Health food shops
- Helplines

That suggests people rated doctors and other healthcare professionals as the best place to seek advice, though a few other sources would involve seeking out information and reading about it themselves. It was also interesting that helplines were not seen as a good place to go for advice.

If you have questions about your thinking skills changing with age, then the best advice would certainly be to

seek some support. Your GP is likely to be a useful point of contact, and we have also listed some resources via the Age UK network at the end of the report that provide a good starting point.

Wherever you choose to get your information, do check that it is from an accurate source, for example from a recognised charity or the NHS. If in doubt, ask someone you trust to help navigate that information.

And don't forget, your local college or university might also have researchers exploring these topics. We might not have all the answers but we'd try to point you towards the best advice we currently have.

## The sources people said they would not use for advice about their thinking skills were...



SOCIAL MEDIA



HEALTH FOOD SHOPS



HELPLINES

# What Keeps You Sharp?

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We conducted the What Keeps You Sharp? survey because we wanted to know how much people understood about these issues.

As we age, some people report their memory getting a bit poorer, or that they slow down when solving problems. Some people see these changes as a normal part of ageing while others think these are early signs of something more serious (for example dementia).

How our thinking skills might change as we age is a real concern for many people.

When we asked whether changes in thinking skills might be a sign of something more serious, 3 in 10 people thought they were.

While some changes might lead onto something more serious, we need to remember some changes in thinking skills with age are to be expected.

When we asked how concerned people were about their thinking skills declining in the future, more than 7 in 10 were either somewhat concerned or very concerned.

That highlights what an important issue this is. While we have lots of questions in the research community about what things are good for our thinking skills, we do also have some good evidence supporting being as active and engaged as possible.

We need to talk about those things more clearly, so people have the best information about what changes might be

expected. If everyone has access to good information, it might help us to think about doing things to keep sharp, in the same way we might make decisions about our heart health, for example.

## Who conducted the survey?

The survey was led by Dr Alan Gow at The Ageing Lab, based in the School of Social Sciences at Heriot-Watt University. The research team was Dr Eleftheria Vaportzis and Malwina Niechcial. The survey was compiled by the researchers with input from their expert collaborators and colleagues. Many of the questions were taken from similar surveys conducted in other countries in recent years.

**What Keeps You Sharp?** was the first stage of an ongoing research project called The Intervention Factory. That project is exploring how taking up a new activity might benefit thinking skills in people aged 65 and over.

## What was done?

The survey was distributed online by the research team via their networks of groups and charities that work with older people, local community groups and national organisations. The survey was also distributed by a social research company to ensure a balanced sample across the different age groups.

Between November 2016 and March 2017, 3,330 people responded to the survey. The results in this report are based on about 3,146 people who answered most of the questions (the difference in numbers is mainly people who started the survey but

then chose not to finish it). Of the people in the sample 1,289 were men and 1,853 were women, while 4 preferred not to specify. The people who took part were aged from 40 to 98 years old.

### Where can I find more information about the research?

The Ageing Lab team would be happy to provide further details about the survey or their ongoing research. More information can be found at [www.healthyageing.hw.ac.uk](http://www.healthyageing.hw.ac.uk), and you can contact the research team at [HealthyAgeing@hw.ac.uk](mailto:HealthyAgeing@hw.ac.uk).

The survey results are continuing to be analysed and are being written up in scientific reports; those reports will be posted on our research website as they become available.

[www.healthyageing.hw.ac.uk](http://www.healthyageing.hw.ac.uk)

### Where can I get advice about changes in thinking skills?

If you have any questions or concerns about your own thinking skills it is important to speak to your GP.

The charity Age UK also provides useful advice and information. The Age UK network covers the whole country and relevant advice can be accessed at:

- **Age UK:** [www.ageuk.org.uk/no-one/we-provide-advice/](http://www.ageuk.org.uk/no-one/we-provide-advice/)  
An advice line is open 8am to 7pm 365 days a year. To talk to someone, just call 0800 169 2081.

- **Age Scotland:** <https://www.ageuk.org.uk/scotland/about-us/our-work/age-scotland-helpline/>

An advice line is open Monday to Friday between 9am and 5pm. To talk to someone, just call 0800 12 44 222.

- **Age NI:** <http://www.ageuk.org.uk/northern-ireland/>

To talk to someone, just call 0808 808 7575.

- **Age Cymru:** <http://www.ageuk.org.uk/cymru/publications/our-information-and-advice/>

An advice line is open Monday to Friday between 9am and 5pm. To talk to someone directly in Welsh or English, just call 0800 022 3444.

These details are for any general concerns you might have about your health and wellbeing. The Age UK network are not responsible for the content of the survey or this report. Any questions related to the survey should be directed to the research team.

### Who funds the research?

The Intervention Factory project, which includes the **What Keeps You Sharp?** survey, is supported by Velux Stiftung, a science-funding foundation. The foundation supports research that aims to maintain or increase the functional ability of older people. You can find out more at <https://veluxstiftung.ch/>

## Acknowledgements

The Ageing Lab would like to thank the members of the **Intervention Factory Forum and Advisory Panel** for their input and advice during the development of the survey, and their assistance in publicising it.

The Intervention Factory Forum comprises colleagues from

**Age Scotland**  
**NHS Lothian**  
**City of Edinburgh Council**  
**Scottish Older People's Assembly**  
**Education Scotland**

The Advisory Panel is

**Professor Kaarin Anstey,**  
University of New South Wales  
**Professor Ian Deary,**  
University of Edinburgh  
**Professor Mike Martin and**  
**Dr Christina Roecke,**  
University of Zurich  
**Professor Kaisu Pitkälä,**  
University of Helsinki;  
**and colleagues from Age UK.**

While we thank our collaborators for their contributions, the content of the survey and this report remain the responsibility of the research team.

We would also like to thank the many individuals and groups who completed the survey and helped share it widely. Thank you for helping us to explore **What Keeps You Sharp?**

[www.healthyageing.hw.ac.uk](http://www.healthyageing.hw.ac.uk)  
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