

# About a **TABLET**

WINTER 2021

## World-first health and ageing study in older adults

### ASPREE-XT

ASPREE-XT is a world-first study following the health of more than 15,000 older adults who participated in the ASPREE trial in Australia and the USA.

#### KEY POINTS

- It is the first large scale follow-up study to investigate how demographic, genetic, environmental and other factors affect health and independence as we age
- The first study to determine whether taking aspirin during the ASPREE trial has long lasting beneficial effects on health, such as dementia or cancer in older adults
- Involves in-person annual study visits (as permitted in COVID-19 times) and one phone call between visits
- Sends a summary of the in-person visit to a nominated GP
- Captures comprehensive high quality health data including:
  - physical measures, e.g. BP
  - non-fasting blood tests
  - thinking and memory
  - physical ability
  - self-reported quality of life and well-being
  - major health events
  - current medications
- Co-ordinated through 16 sites in south-eastern Australia and 22 sites in the USA
- Supported by more than 4000 general practitioners
- Funded by the USA and Australian governments

## Biobuses hit the road again

### Mobile laboratories to go the distance

After a two year hiatus, the ASPREE Biobus teams will once again put the pedal to the metal for science.

The ASPREE Healthy Ageing Biobank is preparing to collect a new wave of blood and urine samples stored or 'banked', in the world-first resource.

Most biobanks are created to study a particular disease. The ASPREE Healthy Ageing Biobank is the first of its kind to store blood and urine samples to study health in 12,000 older Australians.

Many participants will recall giving samples to the Biobank at enrolment into the ASPREE trial and again three years later. Each sample is linked to high quality health information at the time of donation.

#### Advancing health

Donated blood and urine samples are separated into tiny tubes (aliquots) for researchers to potentially identify biomarkers (proteins, lipids and genes/DNA).

Samples collected a few years apart enables researchers to track changes in biomarkers in blood or urine over time. The aim is to identify biomarkers linked to disease

and also biomarkers linked to good health.

Some Biobank samples have already contributed to major research projects, including the Medical Genome Reference Bank (MGRB), which created the very first 'library' of DNA of healthy older persons.

The MGRB has since contributed to dozens of studies in older adults.

The SHOW sub-study produced the first 'normal range' of sex hormone levels (such as oestrogen) in healthy older women.

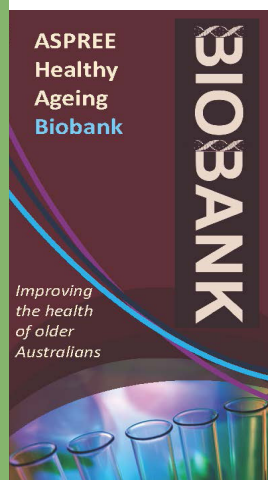
ASPREE studies on Biobank samples are listed on [aspree.org](http://aspree.org) (publications).

#### Biobank sample collection

From later this year, ASPREE-XT participants will be invited to donate blood (~40ml; just like a blood test) and urine (~70ml) to the Biobank.

Aliquots are de-identified, frozen at up to -190°C and stored near the ASPREE-XT Melbourne office.

The roll-out will begin in Victoria. Some pathology centres will collect the samples on our behalf. ASPREE Biobuses will be ready to collect samples from participants living further afield.



## RESEARCH SAVVY

### How to read health news

Here are 8 tips to help make sense of so many (and sometimes contradictory) health stories appearing online and in the media.

#### 1) Headlines don't tell the story!

Take headlines with a grain of salt - their purpose is to catch your attention, not summarise research.

#### 2) Humans, laboratory or mice?

Was the research on cells in laboratories or mice? Early 'discovery' research starts in laboratories, however, it often does not make it to human trials. Human trials are the most reliable source of health information.

#### 3) How many participants were in the study?

Generally, large studies that involve thousands of people provide more accurate findings. Smaller studies may indicate a link or association, which often needs to be confirmed by a large study.

#### 4) Who are the participants?

What does the report say about the participants? Was the study only in men or women, what was their age and were they healthy or unwell? Research findings in one group of people, often do not apply to other groups of people.

#### 5) Was it a controlled trial?

Large, randomised, placebo controlled trials (such as ASPREE) are considered the best source of scientific information for human health.

#### 6) How big was the effect?

Did the study report a large or a small difference to health?

#### 7) Who conducted the research?

Was the organisation reputable, i.e. a university or research institute?

#### 8) Where was the study published?

Is the medical journal reputable? Has the study been scrutinised by qualified peers, which is an important step to help verify the findings. Did the author note limitations, such as a small effect, or the need for further research?

*If you are concerned about a health story, your GP is the best person to give you individual health advice.*

This article was based on content from <https://www.cancerresearchuk.org/about-cancer/what-is-cancer/understanding-statistics-in-cancer-research>, and the NHS website.

## Published ASPREE papers

Very few high quality studies focus only on older adults.

ASPREE and ASPREE sub-studies provide important knowledge about aspirin and a range of factors affecting ageing health.

Findings are shared with scholars and health practitioners around the world, ensuring your participation benefits many.



### Sub-study reveals extent of complementary medicine use

Almost 75% of ASPREE participants reported using complementary medicines in the first round of ALSOP questionnaires completed between January 2012 - July 2015.

This analysis provides the most comprehensive information to date on complementary medicine use by Australians over 70 years of age.

Out of 14,757 respondents, 74.% reported using daily or occasionally the following complementary medications: fish oil (45%), vitamin D (34%), glucosamine (27%), calcium supplements (25%), multivitamins (16%), Vitamin C (13%).

Nine percent reported taking Vitamin

B and Chinese herbal medicines/or other.

Less than 5% of participants reported taking Vitamin E, Coenzyme Q10, Zinc supplements and Ginkgo biloba.

Overall, more women than men reported using complementary medicines, as did participants with a history of depression and osteoarthritis.

Calcium supplements and Vitamin D may have been prescribed by GPs.

The paper's authors recommend all patients speak with their GP about their complementary medicine use, as some medications may interact with others. *Med J Aust Dec. 2020*

### Aspirin and infection

Sepsis is a serious and life-threatening condition caused by the body's overwhelming response to severe infection.

The ASPREE Anti-sepsis sub-study reviewed medical records to determine whether aspirin's anti-inflammatory properties reduced the severity of the condition.

The number of deaths from sepsis during the ASPREE trial was similar in the aspirin and placebo groups (203 in total). The authors concluded that the study did not support the use of aspirin to reduce sepsis in older adults. *The Lancet Resp. Med. Sept 2020*

### Wellness and dementia

A simple questionnaire asking older adults about their health may help to predict a later decline in cognition (thinking and memory) and risk of dementia.

Researchers analysed self-reports of physical and mental wellness from 19,106 ASPREE participants at entry into the trial.

They found higher levels of wellness, particularly mental health, was associated with better cognition and a reduced risk of dementia an average of five years later.

The authors say these early findings warrant further investigation. *Journal of Alzheimer's Disease, March 2021*

ASPREE publications are listed on [www.aspree.org](http://www.aspree.org) (publications)



## Quest to learn factors affecting quality of life

A brand new ALSOP-XT questionnaire inviting you to share your experience of ageing may have recently arrived in your letter box.

The questionnaire is part of the **ALSOP (ASPREE Longitudinal Study in Older Persons) sub-study** to identify factors that may have a major effect on health, independence and quality of life as we age.

Difficulties with hearing or eyesight, sleep, pain or falls are common problems for some older adults and can have a real impact on quality of life.

Lifestyle and social factors, such as physical activity, access to transport and social connection are also important.

ALSOP will broaden researchers' understanding of the impact that health and life circumstances may have on good health or the risk of disease, over the longer term.

Previous ALSOP questionnaires have already contributed to several research papers, including complementary medicine use in older adults (see opposite page).

This latest medical ALSOP-XT questionnaire asks you about the COVID-19 pandemic and includes specific questions about women's and men's health.

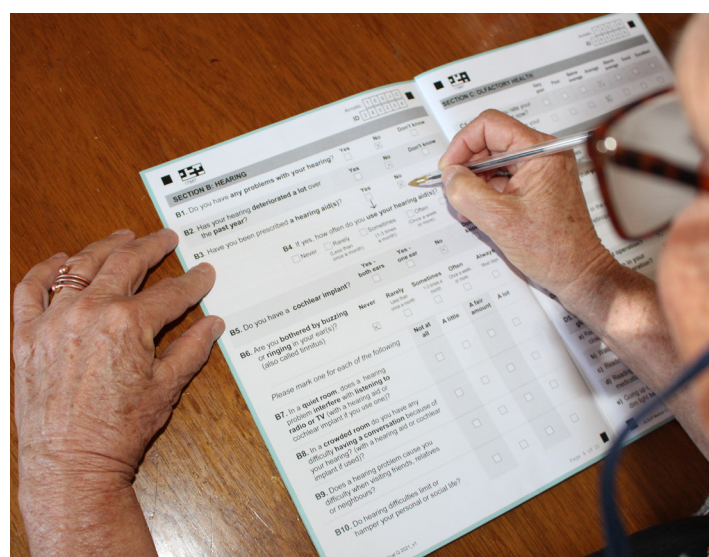
A follow-up companion questionnaire asking about social health will be posted out later this year.

Our thanks to participants who gave valuable feedback on these questionnaires before they went to print. Thanks also to thousands of participants who have already returned the completed forms!

ALSOP-XT questionnaires are completely voluntary. Each question is based on research knowledge, or a gap in research knowledge. Should you feel uncomfortable answering any question, **please leave it blank**.

Answers will be grouped together and no individual will ever be identified in publications.

If you have questions about sub-studies, or any aspect of ASPREE-XT, please contact our team on 1800 728 745.



Above: The ALSOP-XT medical questionnaire is entirely voluntary and should take around 30 minutes to complete.

## What are inflammatory biomarkers?

When inflammation occurs, specific types of proteins called *inflammatory biomarkers* are often released from the affected part of the body into the bloodstream.

Doctors commonly check levels of inflammatory biomarkers in the blood to monitor inflammatory conditions, such as infections, autoimmune diseases and cancers.

While these biomarkers indicate that inflammation is happening somewhere, they cannot pinpoint the exact cause or location of the inflammation.

Inflammation is necessary to help us recover from a sudden infection or injury, but it is also thought to play a role in the development and progression of many long-term diseases and conditions.

There is much to be learned about how inflammatory biomarkers relate to health as we age.

The **Inflammatory Biomarker sub-study** will measure a range of inflammatory biomarkers in participant blood samples stored in the **ASPREE Healthy Ageing Biobank**. Blood samples were donated at enrolment into the ASPREE trial and again three years later.

Inflammatory biomarker measures will reflect participants' health at the time the sample was donated, and prior to future health events, should they occur.

Researchers aim to reliably identify inflammatory biomarkers associated with age-related health conditions, such as cancer, dementia, cardiovascular disease, depression, and frailty.

Such a discovery may, in the future, enable doctors to use a blood test to determine which patients are at risk of poor health and give early appropriate care.

## COVID impacts STUDY VISITS

Our sincere thanks to participants, who undertook phone call visits in lieu of face-to-face visits during recent snap COVID-19 lockdowns.

It is possible that in-person study visits will be intermittently disrupted in the future. We appreciate your understanding as we continue to adapt study activity in line with government advice.

## MICROBIOME-XT

COVID-19 has also delayed roll-out of the Microbiome-XT sub-study.

The shipment of microbiome collection kits from the USA has unfortunately been delayed due to difficulties sourcing components.

We expect a shipment in the coming months. If you have expressed interest in the Microbiome sub-study, we will be in touch when the kits arrive.

## Witnessing 'magic' in acclaimed Australian series

ASPREE's Dr Stephanie Ward can't pick her favourite moment working on the heart-warming ABC documentary 'Old People's Home for 4 Year Olds'.

"I love Diana's line in the finale: 'What we all need is something to look forward to - what's important is expectations of happiness.'"

"How so true for us, of any age," says Stephanie, an ASPREE investigator and a consultant geriatrician on the acclaimed show.

The second series of 'Old People's Home for 4 Year Olds' aired in April this year. It tracks the health and well-being of older adults who attend a purpose built kindergarten for four year olds in Sydney. All adults are independent and live at home alone. The oldest is 91 years of age.

For four days over a six week period, young and old participate in activities focusing on memory, movement and friendship.

Stephanie and her colleagues compared measures of frailty, mood, thinking and memory, and quality of life before and after attending kinder.

"What we saw were some incredible transformations that took place in the older adults," says Stephanie.

"Transformations that us mere health professionals wouldn't be able to make happen on our own!"

The show taught Stephanie several things too: "I have gained an even greater appreciation of how important 'social health' is to our physical health, the power of meaningful connections and that intergenerational contact



can create some real "magic" for both generations."

Stephanie has been involved in several ASPREE sub-studies and instigated the SNORE-ASA sub-study (a study on sleep apnoea) shortly after joining the team in 2010. She continues as an investigator, working on aspects of disability in ASPREE-Xt.

A geriatrician for 10 years, Stephanie says the show is an opportunity to hear about an older person's experience of ageing in Australia.

"I think these types of programs challenge some people's stereotypes of age (of both young and older generations!), and help address some ageist attitudes," she says.

"Old People's Home for 4 Year Olds really combines everything that is important to me. It's about improving health and well-being for older adults, evaluating an experiment, and involving children and family."

Series two is available on ABC iView.



TOP: Old People's Home for 4 Year Olds adult kindergarten attendee Diane, with pre-schooler Maximillian.

ABOVE: Geriatrician and ASPREE Investigator, Dr Stephanie Ward. (Images courtesy of the ABC)

Staying in touch with you is very important

- **Have you moved?**
- **Have a new GP?**
- **A change in circumstance?**
- **Please let us know!**



CALL:

**1800 728 745**

(toll free from a landline)

Email: [aspree@monash.edu](mailto:aspree@monash.edu)

Website: [www.aspree.org](http://www.aspree.org)



@aspree\_org

The ASPREE office operates weekdays 9am - 5pm. If you leave a message, we will return your call.

### ASPREE-Xt Funding Organisations

- National Institute on Aging (NIA/NIH in the USA)
- National Cancer Institute (NCI/NIH in the USA)
- National Health and Medical Research Council of Australia (NHMRC)

### ASPREE-Xt Collaborating Organisations

- Monash University
- Menzies Institute for Medical Research, University of Tasmania
- Australian National University
- The University of Adelaide
- Berman Center for Outcomes & Clinical Research (Minnesota, USA)
- 22 study sites across the USA