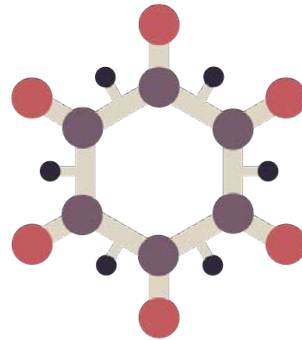


# CoRiCAL: COVID-19 Risk Calculator

Dr Kirsty Short  
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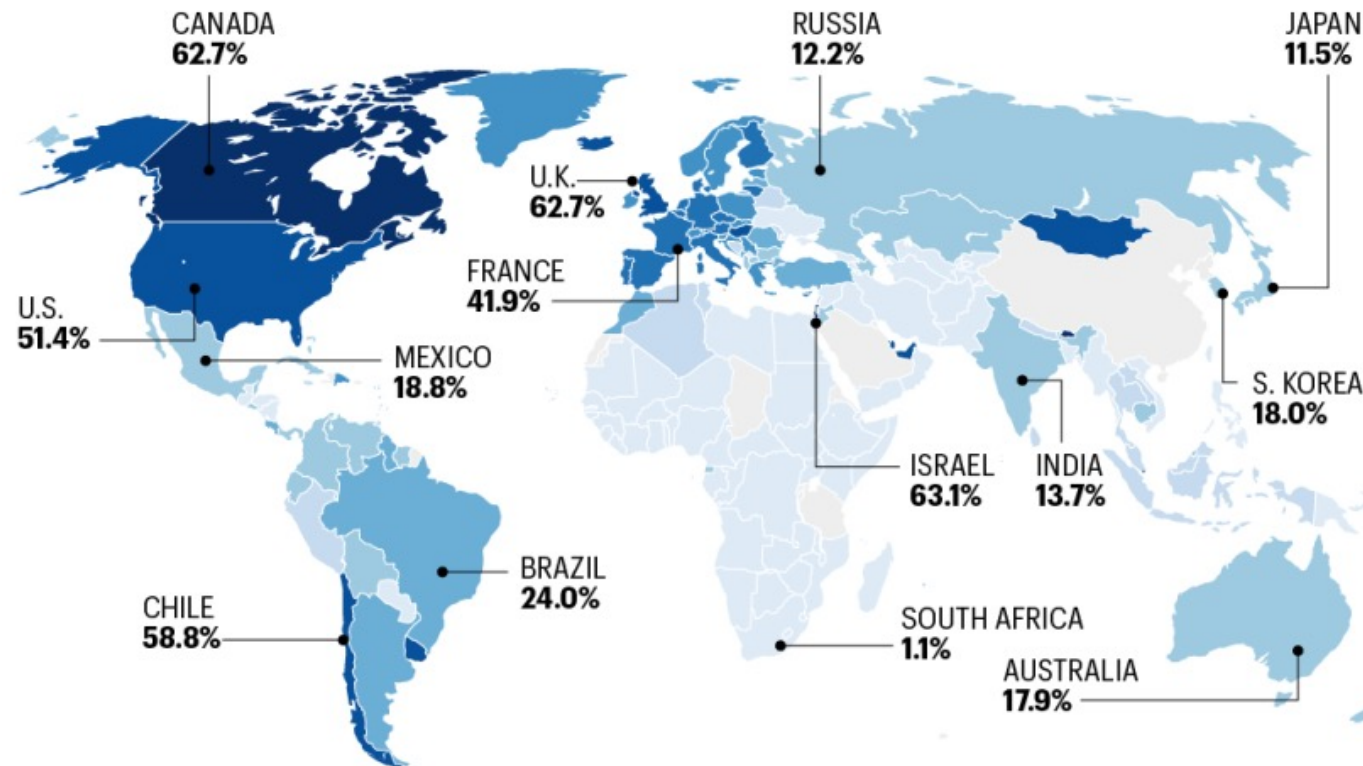


IMMUNISATION  
C O A L I T I O N

# What is the COVID-19 vaccination rate in Australia?

## COVID-19 GLOBAL VACCINE TRACKER

SHARE OF PEOPLE WHO HAVE RECEIVED AT LEAST ONE DOSE OF COVID-19 VACCINE



SOURCES: OFFICIAL DATA;  
OUR WORLD IN DATA

LATEST DATA AVAILABLE, AS OF JUNE 8, 2021

FORTUNE



# What challenges do we face in the roll-out?

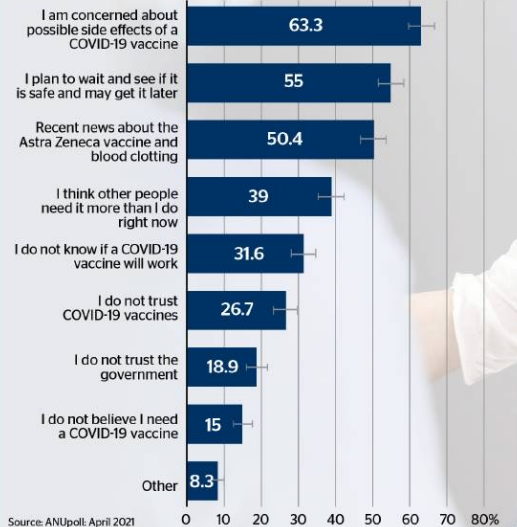
News / National

## NSW woman's blood clot death linked to AstraZeneca vaccine



By 9News Staff | 10:19pm Jun 10, 2021

### Reasons for not wanting to get a COVID-19 vaccine



HEALTH AND SCIENCE

## CDC safety group says there's a likely link between rare heart inflammation in young people after Covid shot

PUBLISHED WED, JUN 23 2021-11:13 AM EDT | UPDATED WED, JUN 23 2021-6:35 PM EDT



Berkeley Lovelace Jr.  
@BERKELEYJR

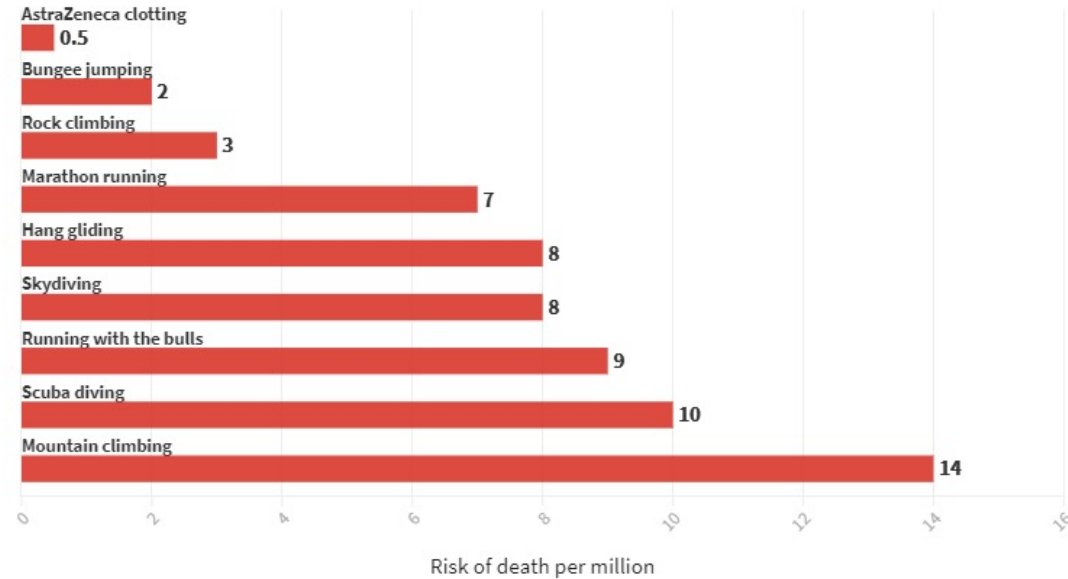
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# How do we contextualise risk?

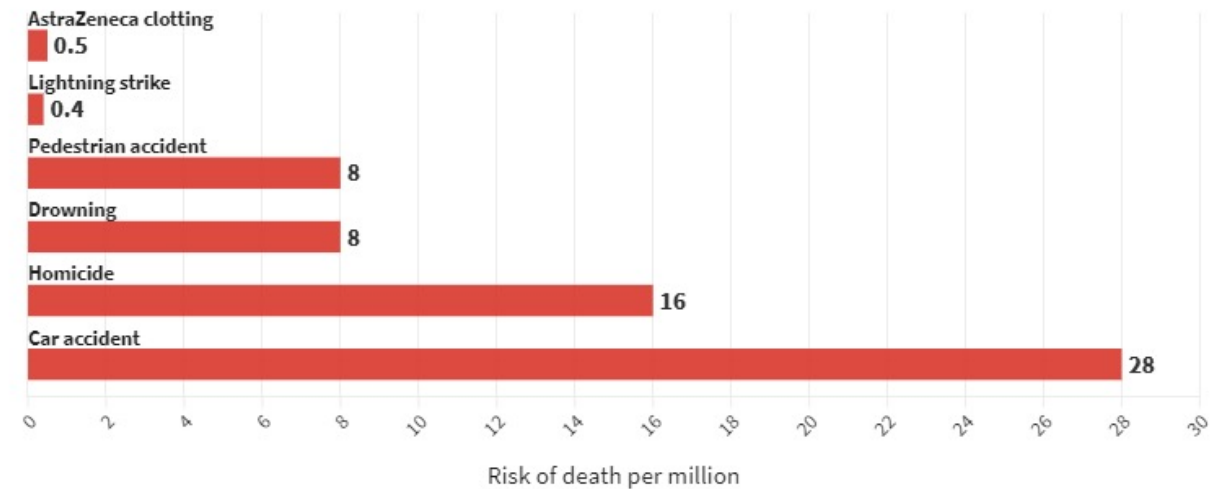
## AZ vaccination vs. adventure sports

Risk of dying from a TTS blood clot after a dose of AstraZeneca vaccine in Australia vs. one-off death risk from adventure sports.



## AZ vaccination vs. other activities

Risk of dying from a TTS blood clot after a dose of AstraZeneca vaccine in Australia vs. annual risk of death from other activities.



# QCOVID: a tool we can adapt for Australia

## Personal Information

Age (19 - 100)

Biological Sex

- ☐ Male  
☐ Female

Ethnicity

White British ▼

Body Mass Index (BMI)

Height (cm)

Weight (kg)

UK postcode

Leave blank if unknown

Housing Category

- ☐ Nursing or care home  
☐ Homeless  
or  
☐ Neither in nursing or care home, nor homeless

## Clinical Information

Diabetes?

- ☐ Yes, type 1  
☐ Yes, type 2  
or  
☐ None

Chronic kidney disease (CKD)?

Select one option

No serious kidney disease ▼

Sickle cell disease or severe combined immunodeficiency syndrome?

- ☐ Yes  
☐ No

Learning disability?

- ☐ Yes, Down's Syndrome  
☐ Yes, Learning disability excluding Down's Syndrome  
or  
☐ None

Cancer treatments and immunosuppressants?

Select one option

No Chemotherapy in the last 12 months ▼

Select all options that are relevant.

- ☐ Had radiotherapy in the last six months  
☐ Currently have cancer of the blood or bone marrow such as leukaemia, myelodysplastic syndromes, lymphoma or myeloma and are at any stage of treatment  
☐ Had a bone marrow transplant in the last 6 months  
☐ Had a solid organ transplant (e.g. lung, liver, stomach, pancreas, spleen, heart or thymus)  
☐ Been prescribed immunosuppressants by a GP in the last six months  
☐ Prescribed oral steroids by a GP in the last 6 months  
☐ Have a lung or oral cancer

Severe respiratory or lung problems?

Select all options that are relevant.

- ☐ Have asthma  
☐ Currently taking anti-leukotrienes or a long-acting beta2-agonist (LABA)  
☐ Have cystic fibrosis or bronchiectasis or alveolitis  
☐ Have pulmonary hypertension or pulmonary fibrosis  
☐ Have chronic obstructive pulmonary disease (COPD)

## Neurological problems?

Select all options that are relevant.

- ☐ Have Parkinson's disease  
☐ Have epilepsy  
☐ Have dementia  
☐ Have motor neurone disease, multiple sclerosis, myaesthesia, or Huntington's Chorea  
☐ Have cerebral palsy

## Heart or circulation problems?

Select all options that are relevant.

- ☐ Have a congenital heart problem  
☐ Have coronary heart disease  
☐ Had a stroke or TIA  
☐ Have atrial fibrillation  
☐ Have heart failure  
☐ Have peripheral vascular disease  
☐ Had a thrombosis or pulmonary embolus

## Other conditions?

Select all options that are relevant.

- ☐ Have severe mental illness  
☐ Have cirrhosis of the liver  
☐ Have rheumatoid arthritis or SLE  
☐ Had a prior fracture of hip, wrist, spine or humerus

On the shielded patient list in 2020?

- ☐ Yes  
☐ No  
☐ Don't know

Calculate

## The risk table

The table shows the absolute risk of catching and dying COVID-19 over a 90-day period based on data from the first peak of the pandemic. There is a comparison with the risk for a person of the same age and sex but with no risk factors. The relative risk is the absolute risk divided by this average risk.

	Absolute risk (a)		Absolute risk with no risk factors (b)		Relative risk (a/b)
COVID associated death	0.0007%	1 in 142857	0.0006%	1 in 166667	1.1667
COVID associated hospital admission	0.0219%	1 in 4566	0.0228%	1 in 4386	0.9605



# What changes do we want to make?

- Adjust the incidence rate (sliding scale for an Australian context)
- Include the risk of disease with Pfizer and AstraZeneca vaccination
  - Benefits of vaccination
- Include the risk of TTS (in talks with THANZ)
- Include the risk of myocarditis?
- Include the risk of long COVID?
- Include relatable, relative risks – Car accident? Homicide?

**We want to create a tool that GPs and patients can use to start a conversation about the need and relative risks of COVID-19 vaccination in an Australian context**



# Acknowledgements



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