

# Does removing both ovaries prior to menopause reduce breast cancer risk in BRCA1 and BRCA2 mutation carriers?

<b>Submission date</b> 08/09/2025	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
<b>Registration date</b> 01/10/2025	<b>Overall study status</b> Ongoing	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 29/09/2025	<b>Condition category</b> Cancer	<input type="checkbox"/> Individual participant data <input checked="" type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

It is unclear whether removing both ovaries and the fallopian tubes (bilateral salpingo-oophorectomy) before menopause reduces the risk of breast cancer in women who carry BRCA1 or BRCA2 gene mutations. There is no clear agreement in international guidelines either. Undertaking a randomised study is not practical because most women would not agree to be randomly assigned. Therefore, we propose an analysis of pooled individual data from established cohorts to better understand this.

The aims of this study are:

1. To estimate the effect of removing both ovaries and the fallopian tubes before menopause on breast cancer risk for (i) women with BRCA1 gene mutations and (ii) women with BRCA2 gene mutations.
2. To test whether any effect of ovary and fallopian tube removal is stronger when carried out at younger ages.

### Who can participate?

Existing data will be included from cohort participants that meet the following criteria:

- carrier of pathogenic or likely pathogenic variant (class 4 or 5) in BRCA1 or BRCA2
- born after 1920
- aged at least 18 years at cohort entry
- no personal history of cancer (except cervix carcinoma in situ or non-melanoma skin cancer) at cohort entry
- no personal history of risk-reducing bilateral mastectomy at cohort entry
- follow-up information available (for at least invasive breast cancer, ductal carcinoma in situ and death)

### What does the study involve?

This study will combine and analyse individual data from established cohorts to understand whether having both ovaries and the fallopian tubes removed before menopause lowers breast cancer risk for women with BRCA1 or BRCA2 mutation carriers. We will use an optimised analytical design to minimise bias and confounding.

### Are There Any Benefits or Risks?

Since this study only looks at existing data, there are no direct benefits or risks to participants. However, results from this research may help influence future clinical care.

### Where is the study run from?

Cancer Council Victoria, Australia

### When is the study starting and how long is it expected to run for?

Data analysis will begin in Feb 2026 and take approximately 12 months to complete.

### Who is funding the study?

The analyses will be conducted by researchers at Cancer Council Victoria, using local funds.

### Who is the main contact?

Professor Roger Milne, [Roger.Milne@cancervic.org.au](mailto:Roger.Milne@cancervic.org.au)

## Contact information

### Type(s)

Scientific, Principal investigator

### Contact name

Prof Roger Milne

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Public

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## Additional identifiers

**Protocol serial number**

RGU/EX2202/20241031

## Study information

**Scientific Title**

Pre-menopausal bilateral salpingo-oophorectomy and breast cancer risk for carriers of BRCA1 and BRCA2 pathogenic variants: A pooled cohort analysis

**Study objectives**

1. Pre-menopausal risk reducing bilateral salpingo-oophorectomy is associated with reduced risk of breast cancer for BRCA2, but not BRCA1, pathogenic mutation carriers
2. Pre-menopausal risk reducing bilateral salpingo-oophorectomy before age 40 years is associated with greater reduced risk of breast cancer than pre-menopausal risk reducing bilateral salpingo-oophorectomy after age 40 years

**Ethics approval required**

Ethics approval not required

**Ethics approval(s)****Study design**

Pooled analysis of multiple longitudinal observational cohort studies.

**Primary study design**

Observational

**Study type(s)**

Prevention

**Health condition(s) or problem(s) studied**

Breast cancer

**Interventions**

This is an observational study that involves analysing pooled individual data that has already been collected within established cohorts. No interventions or treatments will be given and no further data collected from study participants.

**Intervention Type**

Other

**Primary outcome(s)**

Diagnosis of invasive breast cancer or ductal carcinoma in situ (DCIS) derived from self-report (in follow-up questionnaires), pathology reports, medical records and linkages to cancer registries at any time during follow-up.

**Key secondary outcome(s)**

There are no secondary outcome measures

**Completion date**

01/02/2027

## Eligibility

**Key inclusion criteria**

1. Carrier of pathogenic or likely pathogenic variant (class 4 or 5) in BRCA1 or BRCA2
2. Born after 1920
3. Aged at least 18 years at cohort entry
4. No personal history of cancer (except cervix carcinoma in situ or non-melanoma skin cancer) at cohort entry
5. No personal history of risk-reducing bilateral mastectomy at cohort entry

**Participant type(s)**

Other

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Sex**

Female

**Key exclusion criteria**

No follow-up information available

**Date of first enrolment**

30/11/2025

**Date of final enrolment**

01/02/2026

## Locations

**Countries of recruitment**

United Kingdom

England

Australia

Austria

Canada

Czech Republic

France

Germany

Hungary

Netherlands

New Zealand

Norway

Poland

Spain

Sweden

United States of America

**Study participating centre**

**NRG Oncology**

Four Penn Center, 1600 JFK Blvd, Suite 1020

Philadelphia

United States of America

19103

**Study participating centre**

**Columbia University**

116th and Broadway

New York

United States of America

10027

**Study participating centre**

**Cancer Prevention Institute of California**

2201 Walnut Ave

Fremont

United States of America

94538

**Study participating centre**

**Cancer Care Ontario**

620 University Ave  
Toronto  
Canada  
ON M5G 2C1

**Study participating centre**

**Fox Chase Cancer Centre**

333 Cottman Ave  
Philadelphia  
United States of America  
19111

**Study participating centre**

**The University of Utah Health Sciences Centre**

201 Presidents' Cir  
Salt Lake City  
United States of America  
84112

**Study participating centre**

**The University of Melbourne**

Grattan Street  
Parkville  
Australia  
3010

**Study participating centre**

**University of Pennsylvania**

3451 Walnut Street  
Philadelphia  
United States of America  
19104

**Study participating centre**

**Vall d'Hebron University Hospital**

Pg. de la Vall d'Hebron, 119, Horta-Guinardó  
Barcelona  
Spain  
08035

**Study participating centre**

**University of Cambridge**

The Old School  
Trinity Lane  
Cambridge  
United Kingdom  
CB2 1TN

**Study participating centre**

**Institute Paoli-Calmettes**

232 Bd de Sainte-Marguerite  
Marseille  
France  
13009

**Study participating centre**

**The Netherlands Cancer Institute**

Plesmanlaan 121  
Amsterdam  
Netherlands  
1066 CX

**Study participating centre**

**Medical University of Vienna**

Spitalgasse 23  
Wien  
Austria  
1090

**Study participating centre**

**Oslo University Hospital**

Sognsvannsveien 20  
Oslo  
Norway  
0372

**Study participating centre**

**University Medicine of Greifswald**

Fleischmannstraße 8

Greifswald  
Germany  
17475

**Study participating centre**  
**National Institute of Oncology**  
Ráth György u. 7-9  
Budapest  
Hungary  
1122

**Study participating centre**  
**Lund University**  
Box 188  
Lund  
Sweden  
SE-221 00

**Study participating centre**  
**The International Hereditary Cancer Center**  
ul. Rybacka 1  
Szczecin  
Poland  
70-204

**Study participating centre**  
**Masaryk Memorial Cancer Institute**  
Žlutý kopec 7  
Brno  
Czech Republic  
656 53

**Study participating centre**  
**Spanish National Cancer Research**  
C. de Melchor Fernández Almagro, 3, Fuencarral-El Pardo  
Madrid  
Spain  
28029

**Study participating centre**  
**Peter MacCallum Cancer Centre**  
305 Grattan St  
Melbourne  
Australia  
3000

**Study participating centre**  
**Auckland Hospital**  
2 Park Road  
Auckland  
New Zealand  
1023

## **Sponsor information**

**Organisation**  
Cancer Council Victoria

**ROR**  
<https://ror.org/023m51b03>

## **Funder(s)**

**Funder type**  
Charity

**Funder Name**  
Cancer Council Victoria

**Alternative Name(s)**

**Funding Body Type**  
Private sector organisation

**Funding Body Subtype**  
Trusts, charities, foundations (both public and private)

**Location**  
Australia

# Results and Publications

## Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study will not be made publicly available. Data may be available on reasonable request to the PIs of the component cohorts used in this study.

## IPD sharing plan summary

Other

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Protocol file</a>	version 2	08/08/2025	29/09/2025	No	No