

## AGE AT MENOPAUSE ALGORITHM

**Variable Name:** MENO

**Description:** Age at which a participant went through menopause

A woman's age at menopause will be the age at which she first experienced any of the following:

- 1) Last had any menstrual bleeding
- 2) Had a bilateral oophorectomy
- 3) Began using hormone replacement therapy

If a woman had a hysterectomy, but not a bilateral oophorectomy, then her age at menopause will be the age at which she first experience one of the following:

- 1) Began using hormone replacement therapy
- 2) First had symptoms of menopause, such as hot flashes or night sweats

If a woman had a hysterectomy, but not a bilateral oophorectomy, AND she did not take HRT (or began HRT over the age of 60), AND she did not experience symptoms of menopause (such as hot flashes or night sweats), AND she had her hysterectomy at age 50 or older, then her age at menopause will be the age she had her hysterectomy.

If a woman has an age at menopause of greater than 60, based on the above algorithm, her age at menopause will be recoded as age 60.

### Missing values:

A participant will have a missing value for their age at menopause if she:

- 1) Did not have a hysterectomy , AND
- 2) Has a missing value for age last had any menstrual bleeding, AND
- 3) Has a missing value for age had bilateral oophorectomy, AND
- 4) Has a missing value for age began hormone replacement therapy

A participant will also have a missing value if she:

- 1) Had a hysterectomy, but not a bilateral oophorectomy, AND
- 2) Had her hysterectomy when she was under 50 years of age, AND
- 3) Has a missing value for age began hormone replacement therapy, AND
- 4) Has a missing value for age first experienced menopausal symptoms (such as hot flashes or night sweats)

**Title:** AGE AT MENOPAUSE

**Variable Name:** MENO

**Category:** Medical history

**Description:** Age at which a participant had menopause

**Purpose:** Computed continuous variable for the age at which a participant went through menopause

**MENOPA Values:** continuous

**Denominator:** All participants

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**Form Variables**

**Form:** 31 – Reproductive History

**Question Text fromVersion:** Ver. 2

Variable Name	Question Number	Question
ANYMENZA	5	How old were you when you last had any menstrual bleeding? <b>(If you are still having menstrual bleeding or periods, enter your current age.)</b>
MENPSYAF	6.1	How old were you when you <u>first</u> had symptoms such as hot flashes or night sweats? <b>(Your best guess.)</b>
OOPH	10	Did you ever have an operation to have one or both of your ovaries taken out?
OOPHA	10.1	How old were you when you had your <u>last</u> operation to remove an ovary?

**Form:** 2 – Eligibility Screen

**Question Text fromVersion:** Ver. 3

Variable Name	Question Number	Question
AGE	7	Age at screening computed from birth date
HYST	18	Did you ever have a hysterectomy? (This is an operation to take out your uterus or womb.)
HYSTAGE	18.2	How old were you when you had your hysterectomy?

**Intermediate Variables:**

Variable Name	Description
TOTHMIN	Age at which participant first started using hormone replacement therapy (summary variable from Form 43 data file)
BIOOPH	Ever had a bilateral oophorectomy
BIOOPHA	Age at bilateral oophorectomy (range)
BIOOCAT	Age at bilateral oophorectomy (mid-point of range)
HYSTCAT	Age at hysterectomy (mid-point of range)

**Algorithm:**

INTERMEDIATE VARIABLE CREATION AND DATA EDITS:

BIOOPH:

IF OOPH=0 (No) OR OOPH=1 (Yes, one was taken out) OR OOPH=3 (Yes, unknown number taken out) OR OOPH=4 (Yes, part of an ovary was taken out) OR OOPH=9 (Don't know) THEN BIOOPH=0 (No);  
IF OOPH=2 (Yes, both were taken out) THEN BIOOPH=1 (Yes);

Missing:

IF OOPH=. (Missing) THEN BIOOPH=. (Missing);

BIOOPHA:

IF BIOOPH=1 (Yes) THEN BIOOPHA=OOPHA;

Missing:

IF BIOOPH=0 (No) OR BIOOPH=. (Missing) THEN BIOOPHA=. (Missing);

BIOOCAT:

IF BIOOPHA=1 (Less than 30) THEN BIOOCAT=30;  
IF BIOOPHA=2 (30-34) THEN BIOOCAT=32;  
IF BIOOPHA=3 (35-39) THEN BIOOCAT=37;  
IF BIOOPHA=4 (40-44) THEN BIOOCAT=42;  
IF BIOOPHA=5 (45-49) THEN BIOOCAT=47;  
IF BIOOPHA=6 (50-54) THEN BIOOCAT=52;  
IF BIOOPHA=7 (55-59) THEN BIOOCAT=57;  
IF BIOOPHA=8 (60 or older) THEN BIOOCAT=60;

Missing:

IF BIOOPHA=. (Missing) THEN BIOOCAT=. (Missing);

HYSTCAT:

IF HYSTAGE=1 THEN HYSTCAT=30;  
IF HYSTAGE=2 THEN HYSTCAT=32;  
IF HYSTAGE=3 THEN HYSTCAT=37;  
IF HYSTAGE=4 THEN HYSTCAT=42;  
IF HYSTAGE=5 THEN HYSTCAT=47;  
IF HYSTAGE=6 THEN HYSTCAT=52;  
IF HYSTAGE=7 THEN HYSTCAT=57;  
IF HYSTAGE=8 THEN HYSTCAT=60;

Missing:

IF HYSTAGE=. THEN HYSTCAT=.;  
IF 50<=AGE<=59 AND HYSTAGE=8 THEN HYSTCAT=.;

VARIABLE COMPUTATION:

MENO=MIN(ANYMENSA, BIOOCAT, TOTHTMIN);

IF HYST=1(yes) AND (OOPH=0(no) OR OOPH=1(yes, one taken out) OR OOPH=3(Yes, unknown number taken out) OR OOPH=4(yes, part of an ovary was taken out) OR OOPH=9(don't know) OR OOPH=(missing)) THEN MENO=MIN(TOTHTMIN, MENPSYAF);

IF HYST=1 (yes) AND AGEHYST >= 3 (50-54) AND (OOPH=0 (no) OR OOPH=1 (yes, one taken out) OR OOPH=3 (yes, unknown number taken out) OR OOPH=4 (yes, part of an ovary was taken out) OR OOPH=9 (don't know) OR OOPH=(missing)) AND MENPSYAF=(missing) AND (TOTHHMIN=(missing) OR TOTHHMIN>60) THEN MENO=HYSTCAT;

IF MENO>60 THEN MENO=60;

Missing:

IF HYST=0 AND ANYMENSA=(missing) AND BIOOCAT=(missing) AND TOTHHMIN=(missing) THEN MENO=(missing);

IF HYST=1(yes) AND (OOPH=0(no) OR OOPH=1(yes, one taken out) OR OOPH=3(yes, unknown number taken out) OR OOPH=4(yes, part of an ovary was taken out) OR OOPH=9(don't know)) AND AGEHYST<3 AND TOTHHMIN=(Missing) AND MENPSYAF=(Missing) THEN MENO=(missing);