

ARIC

Atherosclerosis Risk in Communities

HEALTH HISTORY FORM

O.M.B. 0925-0281
exp. 09/30/98

ID NUMBER:

CONTACT YEAR: 1 0

FORM CODE: H H X

VERSION: D 12/01/95

LAST NAME:

INITIALS:

Public reporting burden for this collection of information is estimated to average 2 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: PHS Reports Clearance Officer, Rm. 737-F, Humphrey Building, 200 Independence Ave., SW, Washington, D.C. 20201, ATTN: PRA (0925-0281). Do not return the completed form to this address.

INSTRUCTIONS: This form should be completed during the participant's visit. ID Number, Contact Year and Name must be entered above. Whenever numerical responses are required, enter the number so that the last digit appears in the rightmost box. Enter leading zeroes where necessary to fill all boxes. If a number is entered incorrectly, mark through the incorrect entry with an "X". Code the correct entry clearly above the incorrect entry. For "multiple choice" and "yes/no" type questions, circle the letter corresponding to the most appropriate response. If a letter is circled incorrectly, mark through it with an "X" and circle the correct response.

HEALTH HISTORY FORM (HHXD screen 1 of 8)

A. AFU CHEST PAIN CONFIRMATION

1. Did the participant report positive Rose angina in the Annual Follow-up call preceding this visit?..... Yes Y

Go to Item 4, Screen 2. No N

2. In the ARIC telephone call you mentioned having some pain or discomfort in your chest in the past year. Could you tell me where it was? Yes Y

Go to Item 4, Screen 2. No-pain not recalled P

Go to Item 3. No-location not recalled L

[DO NOT READ LOCATIONS]

	Yes	No
2.a. Sternum (upper or middle)	Y	N
b. Sternum (lower)	Y	N
c. Left anterior chest	Y	N
d. Left arm	Y	N
e. Other	Y	N

Go to Item 3.

Specify: _____

3. In the past two months has your chest discomfort either occurred more often, lasted longer when it occurs, or come on at rest? Yes Y
No N

B. INVASIVE PROCEDURES

4. Since your last ARIC visit, have you had surgery on your heart, or the arteries of your neck or legs, excluding surgery for varicose veins? Yes Y

Go to Item 6, Screen 3. _____ No N

5. Did you have:

a. Coronary bypass: Yes Y
 _____ No N

b. Other heart procedure: Yes Y
 Go to Item 5.c. _____ No N

Specify: _____

c. Carotid endarterectomy: Yes Y
 Go to Item 5.e. _____ No N

5.d. Site: Right R
 Left L
 Both B

e. Other arterial revascularization: Yes Y
 Go to Item 5.f. _____ No N

Specify: _____

f. Any other type of surgery on your heart or the arteries of your neck or legs? Yes Y
 No N

6. Since your last visit to the ARIC clinic, have you had a balloon angioplasty on the arteries of your heart, neck, or legs? Yes Y

Go to Item 8. _____ No N

7. Did you have:

a. Angioplasty of the coronary arteries: Yes Y
 _____ No N

b. Angioplasty in the arteries of your neck: Yes Y
 _____ No N

c. Angioplasty of lower extremity arteries: Yes Y
 _____ No N

8. Since your last visit to the ARIC clinic, have you had:

a. Heart catheterization: Yes Y
 No N

b. Carotid artery catheterization: Yes Y
 No N

c. Other arterial catheterization: Yes Y
 Go to Item 9.a., Screen 4. _____ No N

Specify: _____

C. DIAGNOSTIC PROCEDURES

9. Since your last visit to the ARIC clinic, have you had any of the following procedures performed for a medical reason? Please do not include any procedures done for research studies or a fitness program.

- | | <u>Yes</u> | <u>No</u> |
|--|------------|-----------|
| a. Echocardiogram: | Y | N |
| b. Electrocardiogram: | Y | N |
| c. Treadmill or cardiac stress test: | Y | N |
| <div style="border: 1px solid black; display: inline-block; padding: 2px;">Go to Item 9.e.</div> | | |
| d. Thallium scan of the heart: | Y | N |

- | | <u>Yes</u> | <u>No</u> |
|---|------------|-----------|
| 9.e. Holter monitor: | Y | N |
| f. Heart rhythm and conduction studies: | Y | N |
| g. Carotid ultrasound studies: | Y | N |
| h. MRI exam of the brain: | Y | N |
| i. CAT scan of the brain: | Y | N |

D. HEAD INJURIES

10. Have you ever had a major head injury? That is, one that resulted in your losing consciousness, no matter how briefly, or that led you to see a physician or seek hospital care? Yes Y

Go to Item 11. No N

a. How many times has this happened?

b. How many of these head injuries resulted in your losing consciousness, no matter how briefly?

10.c. In what year was your last head injury for which you lost consciousness or sought medical care? 19

E. BLOOD TRANSFUSION

11. Have you ever received a blood transfusion? This includes whole or fresh blood or red blood cells, but NOT plasma or an IV without blood. Yes Y

Go to Item 17, Screen 7. No N
Unknown U

12. How many times have you received a blood transfusion? times

13. How old were you when you had your first transfusion?
age

14. What was the reason for your first transfusion?

[SHOW RESPONSE CARD]

- Injury (car accident, fall, etc.) ... A
- Childbirth B
- Bleeding ulcer C
- Surgery D
- Anemia E
- Other F

15. Was the blood for your first transfusion:

[READ EACH RESPONSE CATEGORY]

	<u>Yes</u>	<u>No</u>	<u>Unknown</u>
a. Your own	Y	N	U
b. From a blood relative	Y	N	U
c. From a non-blood relative	Y	N	U
d. From a blood bank	Y	N	U

[READ ONLY IF MORE THAN 1 TRANSFUSION]

16. Was the blood for your other transfusions:

[READ EACH RESPONSE CATEGORY]

	<u>Yes</u>	<u>No</u>	<u>Unknown</u>
a. Your own	Y	N	U
b. From a blood relative	Y	N	U
c. From a non-blood relative	Y	N	U
d. From a blood bank	Y	N	U

17. Have you ever received any other blood products, such as clotting factors, white blood cells, platelets or plasma? Yes Y
No N
Unknown U

F. WALKING/STANDING

18. Does the participant use a wheelchair, crutches or walker? Yes Y
No N

Go to Item 20, Screen 8.

19. Does the participant walk with a cane? Yes Y
No N

INSTRUCTIONS FOR THE HEALTH HISTORY FORM
 HHX, VERSION D, 12/01/95
 PREPARED 02/12/96

I. GENERAL INSTRUCTIONS

The Health History form is administered by a study-certified physician's assistant, nurse/nurse practitioner, licensed practical nurse, or an equivalently trained field center staff member with a general understanding of the medical terms and diagnostic procedures referred to in this interview. Familiarity with and understanding of the document entitled "General Instructions for Completing Paper Forms" is necessary prior to administering this form. The participant's ID number, Contact Year and Name are completed in this form's header as described in that document.

II. DETAILED INSTRUCTIONS FOR EACH ITEM

A. Annual Follow-up (AFU) Chest Pain Confirmation

1. Section A refers to the reporting of chest pain by the participant during the most recent administration of the Annual Follow-up (AFU) form. Do not read Item 1 aloud. Item 1 is completed by the interviewer after reviewing the AFU form, which is filed in the participant's folder. "Positive Rose angina" is defined as the response code 'L' (10 minutes or less) to Item 12 in the AFU form. The response 'M' (more than 10 minutes) or no response (i.e., missing) is coded as NO in the HHX form, and the interviewer skips to Item 4. In general, the 'Annual Follow-up call preceding this visit' refers to the ninth AFU contact (CY10), the most recent contact in which the fourth ARIC examination (Visit 4) was scheduled. In every case, it refers to the most recent participant contact prior to the fourth ARIC examination.
2. "In the past year" refers to the 12 months immediately preceding the most recent Annual Follow-up interview. If the participant does not remember reporting chest pain, code 'P' and skip to Item 4.

If the participant cannot locate the site of the reported pain (i.e., a negative response to 'Could you tell me where it was?') , code 'L' and skip to Item 3.

To select YES, the participant must confirm having had chest pain and that the chest pain occurred within the 12 months prior to the AFU interview, and that the location can be identified. When the site of the pain can be identified, code 'Y', and respond YES or NO to each of the locations in items 2a-e.

To complete items 2a-e, ask the participant to point to the area or areas where the pain occurred. Areas other than those listed on the form should be specified on a note log after Item 2e. The areas are the interviewer's best approximation with the sternum divided into thirds, and the anterior chest to the left of the sternum and below the clavicle. The left arm includes the area below the clavicle and above the left hand. The left shoulder (clavicle and above), neck and jaw are coded as "other" (Item 2e).

3. Ask the question as written. Code YES for any positive response to a reported change in the frequency, duration or onset at rest of the chest pain which has occurred in the last two months prior to this interview compared to any previous episodes of chest pain. This includes terms, such as, "worse" or "more severe" chest discomfort or pain.

B. Invasive Procedures

4. The frame of reference for items 4-8 is the time period between the third and fourth ARIC examinations. If the third examination was missed, then the frame of reference is the time period between the second and fourth ARIC examinations.

Items 4 and 5 refer to "major" therapeutic surgery on the heart or the arteries of the neck or legs. "Legs" refers to the entire lower extremity (not just "below the knee" which is the restricted anatomical definition). "Surgery" does not include lower extremity arteriography, even though it is an "invasive" procedure, nor surgery for varicose veins. Note also that "abdominal aortic aneurysm repair" is not included here.

A table of standardized definitions and synonyms is provided at the end of the instructions. These definitions are read to participants who request the definition or a clarification of a procedure during the interview.

Code NO and skip to Item 6 if the participant denies surgery on the heart, or leg or neck arteries since the last ARIC visit.

5. The questions in Item 5 are not mutually exclusive. For example, when coding, a person who has had coronary bypass surgery may have also had another "open heart" procedure during the same operation, in which case YES is coded for both Items 5a and 5b.

Coronary bypass surgery (Item 5.a) is a procedure to improve blood supply to the heart muscle. This surgery is most often performed when narrow coronary arteries reduce the flow of oxygen-containing blood to the heart.

Examples of "other heart procedures" include: valve replacement, ventricular aneurysm resection, repair of aortic or ventricular stenosis, patent ductus closure, pacemaker, etc. Note that coarctation of the aorta would not be included here as an isolated surgical procedure. Specify the type of "other heart procedure(s)" in the note log following Item 5b.

The procedure "carotid endarterectomy" can be defined to the participant (if requested) as "surgery to restore blood flow in one or both of the arteries in your neck". If the participant does not report this procedure, continue with Item 5e. If the response is YES, identify the site(s) of the procedure in Item 5d. Identify all sites (Right, Left, or Both) on which the procedure was done.

With regard to the lower extremity, "other arterial revascularization" (item 5e) includes any procedure where additional blood flow is brought to an artery via a by-pass from a location elsewhere in the body. An example for the lower extremity is an ilio-femoral bypass procedure. A response of YES requires the specification of the procedure in the following note log.

If another type of surgery on the heart is reported, code YES for Item 5f. Examples of "other" could be resection of an aneurysm, removal or bypass of congenital malformations, or trauma surgery. A note log is not necessary.

6. Items 6 and 7 refer to balloon angioplasty only on the arteries of the heart, neck or legs. Balloon angioplasty is defined as a therapeutic procedure used to dilate (widen) narrowed arteries. A catheter with a deflated balloon on its tip is passed into the narrowed artery segment, the balloon inflated, and the narrow segment widened. To keep arteries from collapsing, stents (stainless-steel supports) can be inserted into the artery during angioplasty. "Legs" refers to the entire lower extremity (not just "below the knee", which is the restricted anatomical definition). Verify that the participant knows the difference between a catheterization and a balloon angioplasty procedure before recording a YES response. Catheterization is defined as a diagnostic procedure used to examine the arteries, veins or heart by introducing a thin tube (catheter) into a vein or artery.
7. Item 7 only documents balloon angioplasty of the coronary arteries (the two arteries arising from the aorta that arch down over the top of the heart, branch and provide blood to the heart muscle), the carotid arteries (the arteries in the neck), and the arteries in the lower extremities (the entire lower extremity, not just below the knee). Angioplasty with stents, or "stents" is generally performed for coronary artery angioplasty and are coded as YES in Item 7.a.

Balloon angioplasty of the renal arteries does not fit any of the categories for Item 7 and should not be recorded.

8. The overlap in items 7a and 8a, 7b and 8b, and 7c and 8c is deliberate. The primary distinction between the two sets of questions is the intent of the procedure. Angioplasties are generally therapeutic procedures, whereas "simple" catheterizations are diagnostic procedures, often performed prior to balloon angioplasty.

Heart catheterization involves introducing a thin tube (catheter) into a vein or artery and passing it into the heart.

Carotid artery catheterization involves introducing a thin tube (catheter) into the carotid artery in the neck.

If there is a positive response to "other arterial catheterization", code YES and specify the procedure in the following note log.

C. Diagnostic Procedures

9. Again, the time frame for Item 9 is the interval between the last and current ARIC examinations, not the last AFU interview. For a response to be YES, these procedures should have been done for a medical reason, and not as part of a research study (including ARIC) or a fitness program. These diagnostic procedures are used in ARIC analyses to indicate possible new cardiovascular disease since the last ARIC visit. In a clinical or medical setting, they would only be ordered by physicians to diagnose or rule out cardiovascular disease(s). In other settings, such as a research study or a physical fitness program, they are performed for reasons other than medical care. The response category is NO for a person who denies having had a procedure or who does not know whether a procedure has been performed and cannot provide any descriptive information which the interviewer can compare with the definitions on the chart of definitions and synonyms.

An echocardiogram (Item 9.a) is a diagnostic method in which pulses of sound are transmitted into the body and the echoes returning from the surfaces of the heart and other structures are electronically plotted and recorded to produce a "picture" of the heart's size, shape and movements.

An Electrocardiogram (ECG or EKG) is a graphic record of the electrical impulses produced by the heart. Item 9.b specifically refers to a resting ECG; do not include an ECG obtained while the person was on the treadmill or participating in other stress tests.

Item 9.c documents whether an ECG or other assessment of cardiac function was performed while the person exercised on a Treadmill (e.g., walking on a revolving platform) or performed other types of cardiac stress tests (e.g., a bicycle) which increased the heart rate. If the response is NO, skip to Item 9.e. If the response is YES, determine whether a thallium scan of the heart (Item 9.d) was performed.

A thallium scan of the heart (Item 9.d) is a diagnostic procedure in which a tracer is injected into the blood stream and imaged as it circulates through the heart.

A Holter monitor (Item 9.e) is a small, portable ECG which is worn by a patient for an extended period of time (usually 24 hours), frequently to measure cardiac arrhythmias (the irregular transmission of electrical impulses in the heart).

Heart rhythm and conduction studies (Item 9.f) sometimes called electrophysiologic testing, are invasive procedures to assess arrhythmias. The procedure is performed under local anesthesia. Temporary electrode catheters are placed through peripheral veins (and sometimes through arteries) into the heart using fluoroscopic guidance. The catheters are positioned in the atria, ventricles or both, and at strategic locations along the conduction system. Their purpose is to record cardiac electrical signals and "map" the spread of electrical impulses during each beat.

Carotid ultrasound studies (Item 9.g) are noninvasive diagnostic studies of the artery(ies) in the neck in which pulses of sound are transmitted into the neck and the echos returning from the surfaces of the artery and other structures are electronically plotted to produce a picture of a small segment of the artery, its walls, and any atherosclerosis (hardening of the arteries or plaque) that may be present. Do not count the previous procedure in ARIC or other research study examinations.

An MRI (magnetic resonance image) of the brain (Item 9.h) is a non-invasive diagnostic technique in which magnetic fields (in contrast to x-rays) are used to produce a picture of the brain which identifies areas of abnormality. The procedure is done while the person is placed in a long, cylindrical tube. Record YES, if the procedure was restricted to the brain or done as part of a more comprehensive MRI scan.

CAT scan (computerized tomography) of the brain (Item 9.i) is also a non-invasive diagnostic technique to produce an image of the brain, in which abnormalities can be identified. This scan, however, only requires the person to lie on a flat surface with the head placed in a donut like structure, in contrast to the MRI. Record YES, if this scan

was restricted to the brain, or done as part of a more comprehensive CT scan.

D. Loss of Consciousness

10. This question documents two types of head injury a person may have had any time prior to this ARIC visit: it includes a head injury (including any blow to the head, car accidents, falls, other trauma, etc.) that either (1) lead to loss of consciousness, regardless of the length of time, OR (2) that required medical follow-up. A positive response for head injury must meet at least one of the two criteria. The definition excludes spontaneous bleeding into the head or brain. If "No", skip to Item 11.

Item 10.a refers to the head injury(ies) reported in the lead-in question which required either medical care or loss of consciousness. If greater than 9, record 9.

Item 10.b focuses on only the head injuries reported in Item 10 in which there was LOSS OF CONSCIOUSNESS (being knocked out). If more than 6 are reported, please double check that all resulted in loss of consciousness. If more than 9 (very unlikely), record 9.

Item 10.c again refers to the ORIGINAL DEFINITION of head injuries, i.e., a head injury that resulted in a LOSS OF CONSCIOUSNESS OR one that required MEDICAL CARE. If only one head injury is reported, enter the year it occurred. If more than one, enter the date of the MOST RECENT ONE.

E. Blood Transfusion

11. Blood transfusions are given for major blood loss (e.g., injury, childbirth, gastrointestinal bleeding, surgery, etc.) or for low red blood cell production (e.g., anemia). Note that this question refers to whole/fresh blood or red cells, but NOT plasma (blood fluid without red cells) or other intravenous (IV) solutions. If NO or UNKNOWN, go to Item 17.
12. This is the TOTAL NUMBER of blood transfusions, meeting the definition in Item 11. If the person cannot remember the exact number, ask for a best guess. A transfusion refers to the procedure, not the number of individual units of blood received. The number of transfusions reported in this question will govern the skip pattern for Item 16.
13. Record age at FIRST blood transfusion.
14. Read the question, stressing the choice is to be based on the first transfusion (if the person has received more than one transfusion), and show the participant the response card while reading the response categories.

15. Seek the source of blood for the first transfusion. There are four choices: "your own"; "from a blood relative"; "from a non-blood relative"; "from a blood bank". Some people donate their own blood, for example, before major surgery; some have relatives donate. It is important that the participant understands that two of the choices differentiate between genetic (biologically related) and non-genetic (related by marriage) relatives (blood relatives and non-blood relatives). For example, one's natural mother is a blood relative and one's step mother is a non-blood relative. Blood that comes from the Red Cross or a facility within a hospital is coded as "blood bank". It is possible that an individual received more than one type of blood during the first transfusion, e.g., two autologous (self-donated) units and one unit from a blood bank. Therefore, READ EACH RESPONSE CATEGORY to the participant and record an answer for each category.
16. THIS ITEM IS TRICKY! If the response to Item 12 was 1, go to Item 17. If the response to Item 12 was 2 or more, read Item 16 stressing "your other" transfusions, and the response categories. The definitions for the sources in the four response categories are the same as for Item 15. And, as in the previous question, the person could have received blood from all four sources, especially if there have been multiple transfusions during his/her lifetime.
17. This question is read to all participants. Other blood products, i.e., those not included in Items 11-16, are reported here. These, however, do NOT include intravenous (IV) transfusions of non-blood products.

F. Walking/Standing

18. The response is coded by the interviewer without asking the participant. A positive response skips the interviewer to Item 20.
19. The response is coded by the interviewer without asking the participant.

E. Administrative Information

20. Enter the date on which the participant completed this interview. Code in numbers using leading zeroes where necessary to fill all boxes. For example, May 3, 1995, would be entered as:

0	5	/	0	3	/	9	5
month			day		year		

- 21. Record "C" if the form was completed on the computerized data entry system, or "P" if the paper form was used. If the form was completed partially on paper and partially on the computer, code as "Paper Form."
- 22. The person at the clinic who has completed this form must enter his/her code number in the boxes provided.

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