



Jean Mayer Human Nutrition Research Center on Aging at Tufts University



QUESTIONNAIRE FOR STUDY:
BONE MINERAL DENSITY

Instructions: The following questions refer to your place of residence and your migration history over the past years.

Past Year (12 Months)

1a. In the **past (1) year**, how many months have you lived in the Northeastern United States (Massachusetts, New York, etc)?

BD2a_w2 months

2b. In the **past (1) year**, how many months have you lived in Puerto Rico, the Southern United States, or another area with a similar climate?

BD2b_w2 months

3. On average, how many hours per week do you spend outdoors during the summer? (**DO NOT include time spent inside vehicles / cars / buses**)

BD3a_w2 hours per day (If "Don't Know", write "98")

OR

BD3b_w2 hours per week

4a. When you spend time outdoors during the summer, what parts of your skin are **usually** exposed to the sun? (**Choose only one answer**)

a. Face only

BD4a_w2

b. Face and hands

c. Face, hands and arms

d. Face, hands, arms and legs

e. Not applicable

4b. When you go out, do you normally use sunscreen/SPF?

0 = No

BD4b_w2

1 = Yes

98 = Don't Know

99 = Not Applicable

Instructions: The following questions refer to falls and fractures that you may have suffered during the past year.

5. During the **past year**, did you accidentally fall to the ground? (**Choose "0 = No" if the accident occurred during a sports activity**)

0 = No (If "No," go to question #8)

BD5_w2

1 = Yes (If "Yes," continue with question #6)

98 = Don't Know (If "Don't Know," continue with question #6)

6. If "Yes" or "Don't Know": How many times did you suffer (or think you suffered) a fall during the **last year**?

BD6_w2 times

7. Did any of your falls during the **last year** result in the following?

	Outcome	Yes	No	Don't Know
a.	Fracture	BD7a_w2 1	0	98
b.	Skin cut	BD7b_w2 1	0	98
c.	Blow to the head requiring medical attention	BD7c_w2 1	0	98
d.	Dislocation	BD7d_w2 1	0	98
e.	Bruise, sprain (twisting of ligaments), or skin cut not requiring medical intervention	BD7e_w2 1	0	98

8. From age 20 until now, has your physician ever told you if you have suffered a fracture or broken bone?

0 = No (If "No," go to question #10) BD8_w2
 1 = Yes (If "Yes," continue with question #9)
 98 = Don't Know (If "No," continue with question #9)

9. In how many of the following bones did you ever suffer (or think your doctor told you that you suffered) a fracture, and at what age?

(If any bones were broken more than once, indicate the age at the time of the first fracture)
 (Specify left or right side inside the appropriate box)
 (If you don't know what side, write "98" in the "Left" and "Right" boxes)
 (If you don't know the age, write "98" in the "Age" box)

	Bone	Yes	No	Left	Right	Age (of first fracture)
a.	Hip	BD9a_w2 1	0	BD9a_L_w2	BD9a_R_w2	BD9a_age_w2
b.	Humerus (arm bone above the elbow)	BD9b_w2 1	0	BD9b_L_w2	BD9b_R_w2	BD9b_age_w2
c.	Cubitus or radius (forearm bones below the elbow), or wrist	BD9c_w2 1	0	BD9c_L_w2	BD9c_R_w2	BD9c_age_w2
d.	Hand	BD9d_w2 1	0	BD9d_L_w2	BD9d_R_w2	BD9d_age_w2
e.	Collarbone	BD9e_w2 1	0	BD9e_L_w2	BD9e_R_w2	BD9e_age_w2
f.	Spinal column	BD9f_w2 1	0	BD9f_L_w2	BD9f_R_w2	BD9f_age_w2
g.	Pelvis	BD9g_w2 1	0	BD9g_L_w2	BD9g_R_w2	BD9g_age_w2
h.	Leg	BD9h_w2 1	0	BD9h_L_w2	BD9h_R_w2	BD9h_age_w2
i.	Foot	BD9i_w2 1	0	BD9i_L_w2	BD9i_R_w2	BD9i_age_w2
j.	Toe(s)	BD9j_w2 1	0	BD9j_L_w2	BD9j_R_w2	BD9j_age_w2
k.	Other; specify: BD9k_specify_w2	BD9k_w2 1	0	BD9k_L_w2	BD9k_R_w2	BD9k_age_w2

Instructions: The following questions refer to falls and fractures that any members of your family may have suffered after the age of 20.

10. Did your mother ever suffer a bone fracture after age 20?

(Refer to your biological mother)

0 = No (If "No" go to question #11) BD10_w2
 1 = Yes
 98 = Don't Know (If "Don't Know" go to question #11)

10a. If “Yes”: Please indicate each bone where your mother suffered a fracture and her age at the time.

(If any bones were broken more than once, indicate the age at the time of the first fracture)

(Specify left or right side inside the appropriate box)

(If you don’t know what side, write “98” inside the “Left” and “Right” boxes)

(If you don’t know the age, write “98” inside the “Age” box)

	Bone	Yes	No	Left	Right	Age (of first fracture)
a.	Hip	BD10a_w2 1	0	BD10a_L_w2	BD10a_R_w2	BD10a_age_w2
b.	Humerus (arm bone above the elbow)	BD10b_w2 1	0	BD10b_L_w2	BD10b_R_w2	BD10b_age_w2
c.	Cubitus or radius (forearm bones below the elbow), or wrist	BD10c_w2 1	0	BD10c_L_w2	BD10c_R_w2	BD10c_age_w2
d.	Hand	BD10d_w2 1	0	BD10d_L_w2	BD10d_R_w2	BD10d_age_w2
e.	Collarbone	BD10e_w2 1	0	BD10e_L_w2	BD10e_R_w2	BD10e_age_w2
f.	Spinal column	BD10f_w2 1	0	BD10f_L_w2	BD10f_R_w2	BD10f_age_w2
g.	Pelvis	BD10g_w2 1	0	BD10g_L_w2	BD10g_R_w2	BD10g_age_w2
h.	Leg	BD10h_w2 1	0	BD10h_L_w2	BD10h_R_w2	BD10h_age_w2
i.	Foot	BD10i_w2 1	0	BD10i_L_w2	BD10i_R_w2	BD10i_age_w2
j.	Toe(s)	BD10j_w2 1	0	BD10j_L_w2	BD10j_R_w2	BD10j_age_w2
k.	Other; specify: BD10k_specify_w2	BD10k_w2 1	0	BD10k_L_w2	BD10k_R_w2	BD10k_age_w2

11. Did your father ever suffer a bone fracture after age 20?

(Refer to your biological father)

0 = No (If “No” go to question #12)

BD11_w2

1 = Yes

98 = Don’t know (If “Don’t know” go to question #12)

11a. If “Yes”: Please indicate each bone where your father suffered a fracture and his age at the time.

(If any bones were broken more than once, indicate the age at the time of the first fracture)

(Specify left or right side inside the appropriate box)

(If you don’t know what side, write “98” in the “Left” and “Right” boxes)

(If you don’t know the age, write “98” in the “Age” box)

	Bone	Yes	No	Left	Right	Age (of first fracture)
a.	Hip	BD11a_w2 1	0	BD11a_L_w2	BD11a_R_w2	BD11a_age_w2
b.	Humerus (arm bone above the elbow)	BD11b_w2 1	0	BD11b_L_w2	BD11b_R_w2	BD11b_age_w2
c.	Cubitus or radius (forearm bones below the elbow), or wrist	BD11c_w2 1	0	BD11c_L_w2	BD11c_R_w2	BD11c_age_w2
d.	Hand	BD11d_w2 1	0	BD11d_L_w2	BD11d_R_w2	BD11d_age_w2

e.	Collarbone	BD11e_w2	1	0	BD11e_L_w2	BD11e_R_w2	BD11e_age_w2
f.	Spinal column	BD11f_w2	1	0	BD11f_L_w2	BD11f_R_w2	BD11f_age_w2
g.	Pelvis	BD11g_w2	1	0	BD11g_L_w2	BD11g_R_w2	BD11g_age_w2
h.	Leg	BD11h_w2	1	0	BD11h_L_w2	BD11h_R_w2	BD11h_age_w2
i.	Foot	BD11i_w2	1	0	BD11i_L_w2	BD11i_R_w2	BD11i_age_w2
j.	Toe(s)	BD11j_w2	1	0	BD11j_L_w2	BD11j_R_w2	BD11j_age_w2
k.	Other; specify: BD11k_specify_w2	BD11k_w2	1	0	BD11k_L_w2	BD11k_R_w2	BD11k_age_w2

12. How many biological sisters do you have?

(Make sure to include any deceased sisters. DO NOT include step-sisters, adopted sisters, or any sisters who are not biologically related to you)

[BD12_w2](#) sisters *(If zero, write "0" and go to question #13)*

12a. Did any of your biological sisters ever break or fracture her hip after age 20?

0 = No

[BD12a_w2](#)

1 = Yes

98 = Don't Know

12b. Did any of your biological sisters ever break or fracture her wrist or forearm after age 20?

0 = No

[BD12b_w2](#)

1 = Yes

98 = Don't Know

13. How many biological brothers do you have?

(Make sure to include any deceased brothers. DO NOT include step-brothers, adopted brothers, or any brothers who are not biologically related to you)

[BD13_w2](#) brothers *(If zero, write "0" and go to question #14)*

13a. Did any of your biological brothers ever break or fracture his hip after age 20?

0 = No

[BD13a_w2](#)

1 = Yes

98 = Don't Know

13b. Did any of your biological brothers ever break or fracture his wrist or forearm after age 20?

0 = No

[BD13b_w2](#)

1 = Yes

98 = Don't Know

14. Anthropometry: Instructions: The following questions refer to measurements of weight, height, waist circumference, and posture

14a. Have you lost or gained weight in the last 6 months?

(if NO or Don't Know, Go to #15)

[BD14a_w2](#)

0 = No *(If "No," go to question #18)*

1 = Yes (*If “Yes,” continue with question #15a*)
 98 = Don’t Know (*If “Don’t Know,” go to question #18*)

14b. How many pounds have you lost or gained?

Text (number, Min:0, Max 998)

BD14b_w2

14c. Did you lose or gain weight?

1 = Lost
 2 = Gained

BD14c_w2

14d. Was the weight loss/gain intentional?

0 = No
 1 = Yes
 98 = Don’t Know

BD14d_w2

14e. Why do you think you lost or gained weight?

Text

BD14e_w2

15a. Weight:

(997 – not performed for safety reasons; 998 – subject refused measurement; 999 – unable to obtain measurement)

Text (number, Min: 70, Max: 999)

BD15a_w2

15b. Standing Height (cm):

Text (number, Min: 121, Max: 999)

BD15b_w2

(997 – not performed for safety reasons; 998 – subject refused measurement; 999 – unable to obtain measurement)

15c. Posture:

(997 – not performed for safety reasons; 998 – subject refused measurement; 999 – unable to obtain measurement)

1 = Straight

BD15c_w2

2 = Slightly stooped - (between straight and 45 degrees)

3 = Very stooped - (45 degrees angle)

16a. Waist – Measurement at point of belly button (cm)

(997 – not performed for safety reasons; 998 – subject refused measurement; 999 – unable to obtain measurement)

Text (number, Min: 50, Max: 999)

BD16a_w2

16b. Calf Circumference (cm):

(997 – not performed for safety reasons; 998 – subject refused measurement; 999 – unable to obtain measurement)

Text (number, Min: 50, Max: 999)

BD16b_w2

17. Are you currently taking any of the following prescription medications to treat osteoporosis?

	Medication Name	No	Yes	Length of Use
a.	Calcitonin <i>by injection</i> (Calcinar, Miacalcin)	BD17a_w2 0	1	BD17a_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
b.	<i>Nasal</i> Calcitonin (Miacalcin)	BD17b_w2 0	1	BD17b_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
c.	Fosamax (Alendronate)	BD17c_w2 0	1	BD17c_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
d.	Didronal (Etidronate)	BD17d_w2 0	1	BD17d_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
e.	Calcium + Vitamin D	BD17e_w2 0	1	BD17e_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
f.	Calcium	BD17f_w2 0	1	BD17f_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
g.	Vitamin D	BD17g_w2 0	1	BD17g_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
h.	Cod liver oil	BD17h_w2 0	1	BD17h_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
i.	Actonel (Risedronate)	BD17i_w2 0	1	BD17i_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
j.	Boniva (Ibandronate)	BD17j_w2 0	1	BD17j_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
k.	Reclast (zoledronic acid)	BD17k_w2 0	1	BD17k_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
l.	Evista (raloxifene)	BD17l_w2 0	1	BD17l_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
m.	Prolia (denosumab)	BD17m_w2 0	1	BD17m_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
n.	Forteo (teriparatide)	BD17n_w2 0	1	BD17n_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
o.	Other: BD17o_specify_w2	BD17o_w2 0	1	BD17o__yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs

WOMEN onlyAre you currently taking any of the following estrogen preparations, either orally or via a patch? (**Do not include vaginal creams**)

	Medication Name	No	Yes	Length of Use
a.	Premarin	BD18a_w2 0	1	BD18a_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
b.	Prempro	BD18b_w2 0	1	BD18b_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
c.	Premphase	BD18c_w2 0	1	BD18c_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
d.	Estratab	BD18d_w2 0	1	BD18d_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
e.	Menest	BD18e_w2 0	1	BD18e_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
f.	Estrace	BD18f_w2 0	1	BD18f_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
g.	Ogen, Ortho-Est	BD18g_w2 0	1	BD18g_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
h.	Estraderm, Vivelle	BD18h_w2 0	1	BD18h_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
i.	Evista	BD18i_w2 0	1	BD18i_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs

j.	Other; specify: BD18j_specify_w2	BD18j_w2 0	1	BD18j_yr_w2 1. <1yr 2. 1-5yrs 3. 5yrs
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19. Physical Performance

19. Side-by-side Stand

"I want you to try to stand with your feet together, side-by-side, for about **10 seconds**. You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. Try to hold this position until I tell you to stop."

19a. Side-by-side Stand Scoring:

Held for 10 seconds = 1

BD19a_w2

Not held for 10 seconds = 0

Not attempted (select reason below) = 0

19b. Side-by-side Stand: Number of seconds held if less than 10 seconds (seconds)

Text (Number, Min 0:00, Max: 9.99)

BD19b_w2

19c. If participant did not attempt test or failed, select why

1 = Tried but unable

BD19c_w2

2 = Participant could not hold position unassisted

3 = Not attempted, you felt unsafe

5 = Participants unable to understand instructions

6 = Participants refused

7 = Other (specify below)

19d. Other (specify)

BD19d_w2

Text

20. Semi-Tandem Stand

"Now I want you to try to stand with the side of the heel of one foot touching the big toe of the other foot for about 10 seconds. You may put either foot in front, whichever is more comfortable for you. You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. Try to hold this position until I tell you to stop."

20a. Semi-Tandem Stand Scoring:

Held for 10 seconds = 1

BD20a_w2

Not held for 10 seconds = 0

Not attempted = 0

20b. Semi-Tandem Stand: Number of seconds held if less than 10 seconds (seconds)

Text (Number, Min 0:00, Max: 9.99)

BD20b_w2

20c. If participant did not attempt test or failed, select why

1 = Tried but unable

BD20c_w2

- 2 = Participant could not hold position unassisted
- 3 = Not attempted, you felt unsafe
- 4 = Not attempted, participant felt unsafe
- 5 = Participants unable to understand instructions
- 6 = Participant refused
- 7 = Other (specify below)

20d. Other (specify)**BD20d_w2**

Text

21. Tandem Stand

“Now I want you to try to stand with the heel of one foot in front of and touching the toes of the other foot for about 10 seconds. You may put either foot in front, whichever is more comfortable for you. You may use your arms, bend your knees, or move your body to maintain your balance, but try to hold this position until I tell you to stop.”

21a. Tandem Stand Scoring:

Hold for 10 seconds = 2

BD21a_w2

Held for 3 to 9.99 seconds = 1

Held for less than 3 seconds = 0

Not attempted (select reason below) = 0

21b. Tandem Stand Score: Number of seconds held if less than 10 seconds (seconds)

Text (Number, Min 0:00, Max: 9.99)

BD21b_w2**21c. If participant did not attempt test or failed, select why**

1 = Tried but unable

BD21c_w2

2 = Participant could not hold position unassisted

3 = Not attempted, you felt unsafe

4 = Not attempted, participant felt unsafe

5 = Participant unable to understand instructions

6 = Participants refused

7 = Other (specify below)

21d. (Other (specify))

Text

BD21d_w2**22. Total balance score (sum points)**Sum [**BD19a_w2**], [**BD20a_w2**], [**BD21a_w2**]**BD22_w2****23. First Gait Speed Test**

“This is our walking course. I want you to walk to the other end of the course at your usual speed, just as if you were walking down the street to go to the store.”

23a. Length of walk test course

1 = Three meters

BD23a_w2

0 = Not attempted (select reason below)

23b. Time for three-meter walk (sec):

Seconds, Min: 0:00, Max: 99:99

BD23b_w2

23c. If participant did not attempt test or failed, select why

1 = Tried but unable

BD23c_w2

2 = Participant could not hold position unassisted

3 = Not attempted, you felt unsafe

4 = Not attempted, participant felt unsafe

5 = Participant unable to understand instructions

6 = Participants refused

7 = Other (specify below)

23d. Other (Specify)

Text

BD23d_w2

23e. Aids for first walk

0 = None

BD23e_w2

1 = Cane

2 = Other

24. What is the time for the fastest of the two walks? (Record the shorter of the times. If only 1 walk done, record that time)

Text (seconds), Min: 0:00, Max: 99:99

BD24_w2

25. Scoring for 3-meter walk (If two done, score for the faster one):

Text, Min: 0, Max: 4

If participant was unable to do the walk = 0 points

BD25_w2

If time is more than 6.52 sec = 1 point

If time is 4.66 to 6.52 sec = 2 points

If time is 3.62 to 4.65 sec = 3 points

If time is less than 3.62 sec = 4 points

26. Single Chair Stand

“First, fold your arms across your chest and sit on the chair so that your feet are on the floor; then stand up keeping your arms folded across your chest. Please stand up keeping your arms folded across your chest.”

26a. Safe to stand without help

0 = No

BD26a_w2

1 = Yes

26b. Single Chair Stand Results

- 2 = Participant stood without using arms
- 1 = Participant used arms to stand
- 0 = Test not completed (select reason below)

BD26b_w2

26c. If participant did not attempt test or failed, select why

- 1 = Tried but unable
- 2 = Participant could not hold position unassisted
- 3 = Not attempted, you felt unsafe
- 4 = Not attempted, participant felt unsafe
- 5 = Participant unable to understand instructions
- 6 = Participants refused
- 7 = Other (specify below)

BD26c_w2

26d. Other (specify)

Text

BD26d_w2

27. Repeated Chair Stand

“Please stand up straight as QUICKLY as you can five times, without stopping in between. After standing up each time, sit down and then stand up again. Keep your arms folded across your chest. I’ll be timing you with a stopwatch.”

27a. Safe to stand 5 times

- 0 = No
- 1 = Yes

BD27a_w2

27b. Did participant complete five stands successfully?

- 0 = No
- 1 = Yes

BD27b_w2

27c. If five stands done successfully, record time in seconds

Time to complete 5 stands (sec): Min: 0:00, Max: 99:99

BD27c_w2

27d. If participant did not attempt test or failed, select why:

- 1 = Tried but unable
- 2 = Participant could not hold position unassisted
- 3 = Not attempted, you felt unsafe
- 4 = Not attempted, participant felt unsafe
- 5 = Participant unable to understand instructions
- 6 = Participants refused
- 7 = Other (specify below)

BD27d_w2

27e. Other (specify)

Text

BD27e_w2

28. Scoring for Repeated Chair Stand:

Text, (Min: 1, Max: 4)

Participant unable to complete 5 chair stands or completes stands in > 50 sec = 0 points

If chair stand time is 16.70 sec or more = 1 points

If chair stand time is 13.70 to 16.69 sec = 2 points

BD28_w2

If chair stand time is 11.20 to 13.69 sec = 3 points

If chair stand time is 11.19 sec or less = 4 points

29. Total Complete Short Physical Performance Battery Score (points): **BD29_w2**

Calculation: sum [**BD22_w2**], [**BD25_w2**], [**BD28_w2**]

30. Hand Grip Measurements

“To assess the strength of your hands, please stand up and grip this device, one hand at a time, with as much strength as possible. We will do this three times with each hand.”

30a. Setting: Set the dynamometer to the size of the hand of the subject and record that size here

Text (number)

BD30a_w2

30b. Trial 1: Right hand (Force in Kg)

Text (number)

BD30b_w2

30c. Trial 1: Left hand (Force Kg)

Text (number)

BD30c_w2

30d. Trial 2: Right Hand (Force Kg)

Text (number)

BD30d_w2

30e. Trial 2 Left Hand (Force (kg))

Text (number)

BD30e_w2

30f. Trial 3: Right Hand (Force Kg)

Text (number)

BD30f_w2

30g. Trial 3: Left Hand (Force Kg)

Text (number)

BD30g_w2

31. Activities of Daily Living

“I will now read a list of activities which, for various reasons –either health conditions or disability- some persons may experience difficulty when performing. Please tell me how difficult they are for you to do by yourself, without the use of special equipment”

32. Walking for a quarter of a mile (2 – 3 blocks)?

BD32_w2

0 = With no difficulty

1 = With some difficulty

2 = With a lot of difficulty

3 = Impossible to do

33. Walking up 10 steps without resting?

BD33_w2

0 = With no difficulty

- 1 = With some difficulty
- 2 = With a lot of difficulty
- 3 = Impossible to do

34. Getting outside?**BD34_w2**

- 0 = With no difficulty
- 1 = With some difficulty
- 2 = With a lot of difficulty
- 3 = Impossible to do

35. Walking from one room to another on the same level?**BD35_w2**

- 0 = With no difficulty
- 1 = With some difficulty
- 2 = With a lot of difficulty
- 3 = Impossible to do

36. Getting out of bed or chairs?**BD36_w2**

- 0 = With no difficulty
- 1 = With some difficulty
- 2 = With a lot of difficulty
- 3 = Impossible to do

37. Eating, like holding a fork, cutting food, or drinking from a glass?**BD37_w2**

- 0 = With no difficulty
- 1 = With some difficulty
- 2 = With a lot of difficulty
- 3 = Impossible to do

38. Dressing yourself, including tying shoes, working zippers and doing buttons?**BD38_w2**

- 0 = With no difficulty
- 1 = With some difficulty
- 2 = With a lot of difficulty
- 3 = Impossible to do

39. Bathing or showering?**BD39_w2**

- 0 = With no difficulty
- 1 = With some difficulty
- 2 = With a lot of difficulty
- 3 = Impossible to do

40. Using the toilet, including getting to the toilet?**BD40_w2**

- 0 = With no difficulty
- 1 = With some difficulty
- 2 = With a lot of difficulty
- 3 = Impossible to do

41. Using a manual can opener?**BD41_w2**

- 0 = With no difficulty
- 1 = With some difficulty
- 2 = With a lot of difficulty
- 3 = Impossible to do

42. Opening a milk carton or orange juice carton?

BD42_w2

- 0 = With no difficulty
- 1 = With some difficulty
- 2 = With a lot of difficulty
- 3 = Impossible to do

43. When you are INDOORS, do you usually use anything to help you get around, such as [READ OPTIONS]? - if YES, which do you use most often?

0 = None

BD43_w2

- 1 = Cane
- 2 = Wheel chair
- 3 = Crutches
- 4 = Walker
- 5 = Other

44. Other (specify)

BD44_w2

Text

45. If you are OUTDOORS, do you usually use anything to help you get around, such as [READ OPTIONS]? - If YES, which do you use most often?

0 = None

BD45_w2

- 1 = Cane
- 2 = Wheel chair
- 3 = Crutches
- 4 = Walker
- 5 = Other

46. Other (specify)

BD46_w2

Text

47. During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

0 = Not at all

BD47_w2

- 1 = A little bit
- 2 = Moderately
- 3 = Quite a lot
- 4 = Extremely

48. Instrumental Activities of Daily Living

“Next, I will ask about some other activities. This card specifies answers about how difficult certain activities can be for people. I’m going to ask you about certain activities and ask you to tell me how difficult they are for you to do by yourself, without special equipment.”

49. Doing chores around the house (like vacuuming, sweeping, dusting, or straightening up?)

0 = With no difficulty

BD49_w2

1 = With some difficulty

2 = With a lot of difficulty

3 = Impossible to do

50. Preparing your own meals?

BD50_w2

0 = With no difficulty

1 = With some difficulty

2 = With a lot of difficulty

3 = Impossible to do

51. Managing your money (such as keeping track of your expenses or paying bills)?

0 = With no difficulty

BD51_w2

1 = With some difficulty

2 = With a lot of difficulty

3 = Impossible to do

52. Shopping for personal items (such as toiletry items or medications?)

0 = With no difficulty

BD52_w2

1 = With some difficulty

2 = With a lot of difficulty

3 = Impossible to do

53. Food Shopping?

BD53_w2

0 = With no difficulty

1 = With some difficulty

2 = With a lot of difficulty

3 = Impossible to do

54. Using the telephone?

BD54_w2

0 = With no difficulty

1 = With some difficulty

2 = With a lot of difficulty

3 = Impossible to do

55. Medical Diagnoses

“Next, I will ask a series of questions regarding a variety of medical diagnoses that you might have received. Have you EVER been told by a DOCTOR that you had any of the following illnesses or conditions?”

56. Diabetes?

BD56_w2

0 = No

1 = Yes

56a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD56a_w2

1 = Yes

56b. Taking Medication for this?

0 = No

BD56b_w2

1 = Yes

56c. Is this condition bothering you currently?

0 = No

BD56c_w2

1 = Yes

56d. At what age were you first diagnosed with diabetes? (If you do not remember give your best estimate)

BD56d_w2

Text (number)

56e. Do you use insulin to help manage your diabetes?

0 = No

BD56e_w2

1 = Yes

56f. At what age did you start to use insulin to help manage your diabetes? (If you do not remember, give your best estimate).

BD56f_w2

Text (number)

57. High blood pressure/Hypertension?

0 = No

BD57_w2

1 = Yes

57a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD57a_w2

1 = Yes

57b. Taking Medication for this?

0 = No

BD57b_w2

1 = Yes

57c. Is this condition bothering you currently?

0 = No

BD57c_w2

1 = Yes

58. Overweight/Obesity?

0 = No

BD58_w2

1 = Yes

58a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD58a_w2

1 = Yes

58b. Taking Medication for this?

0 = No

BD58b_w2

1 = Yes

58c. Is this condition bothering you currently?

0 = No

BD58c_w2

1 = Yes

59. Arthritis?

BD59_w2

59a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD59a_w2

1 = Yes

59b. Taking Medication for this?

0 = No

BD59b_w2

1 = Yes

59c. Is this condition bothering you currently?

0 = No

BD59c_w2

1 = Yes

60. Osteoporosis (low bone density, NOT osteoarthritis)

0 = No

BD60_w2

1 = Yes

60a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD60a_w2

1 = Yes

60b. Taking Medication for this?

0 = No

BD60b_w2

1 = Yes

60c. Is this condition bothering you currently?

0 = No

BD60c_w2

1 = Yes

61. Heart Attack (myocardial Infarction)?

0 = No

BD61_w2

1 = Yes

61a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD61a_w2

1 = Yes

61b. Taking Medication for this?

0 = No

BD61b_w2

1 = Yes

- 61c.** Is this condition bothering you currently?
0 = No BD61c_w2
1 = Yes
- 62.** Angina?
0 = No BD62_w2
1 = Yes
- 62a.** Did you receive this medical diagnoses after our last interview in _____ ?
0 = No BD62a_w2
1 = Yes
- 62b.** Taking Medication for this?
0 = No BD62b_w2
1 = Yes
- 62c.** Is this condition bothering you currently?
0 = No BD62c_w2
1 = Yes
- 63.** Heart Failure? BD63_w2
0 = No
1 = Yes
- 63a.** Did you receive this medical diagnoses after our last interview in _____ ?
0 = No BD63a_w2
1 = Yes
- 63b.** Taking Medication for this?
0 = No BD63b_w2
1 = Yes
- 63c.** Is this condition bothering you currently?
0 = No BD63c_w2
1 = Yes
- 64.** Other heart disease? BD64_w2
0 = No
1 = Yes
- 64a.** Specify BD64a_w2
Text
- 64b.** Did you receive this medical diagnoses after our last interview in _____ ?
0 = No BD64b_w2
1 = Yes
- 64c.** Taking Medication for this?

0 = No BD64c_w2
 1 = Yes

64d. Is this condition bothering you currently?
 0 = No BD64d_w2
 1 = Yes

65. Ischemic (clots)? BD65_w2
 0 = No
 1 = Yes

65a. Did you receive this medical diagnoses after our last interview in _____ ?
 0 = No BD65a_w2
 1 = Yes

65b. Taking Medication for this? BD65b_w2
 0 = No
 1 = Yes

65c. Is this condition bothering you currently?
 0 = No BD65c_w2
 1 = Yes

66. Peripheral Artery Disease? BD66_w2
 0 = No
 1 = Yes

66a. Did you receive this medical diagnoses after our last interview in _____ ?
 0 = No BD66a_w2
 1 = Yes

66b. Taking Medication for this? BD66b_w2
 0 = No
 1 = Yes

66c. Is this condition bothering you currently?
 0 = No BD66c_w2
 1 = Yes

67. Stroke? BD67_w2
 0 = Yes
 1 = No

67a. Did you receive this medical diagnoses after our last interview in _____ ?
 0 = No BD67a_w2
 1 = Yes

67b. Taking Medication for this?

0 = No BD67b_w2
 1 = Yes

67c. Is this condition bothering you currently?
 0 = No BD67c_w2
 1 = Yes

68. Emphysema? BD68_w2
 0 = No
 1 = Yes

68a. Did you receive this medical diagnoses after our last interview in _____ ?
 0 = No BD68a_w2
 1 = Yes

68b. Taking Medication for this? BD68b_w2
 0 = No
 1 = Yes

68c. Is this condition bothering you currently?
 0 = No BD68c_w2
 1 = Yes

69. COPD (chronic obstructive pulmonary disease)? BD69_w2
 0 = No
 1 = Yes

69a. Did you receive this medical diagnoses after our last interview in _____ ?
 0 = No BD69a_w2
 1 = Yes

69b. Taking Medication for this? BD69b_w2
 0 = No
 1 = Yes

69c. Is this condition bothering you currently?
 0 = No BD69c_w2
 1 = Yes

70. Asthma? BD70_w2
 0 = No
 1 = Yes

70a. Did you receive this medical diagnoses after our last interview in _____ ?
 0 = No BD70a_w2
 1 = Yes

70b. Taking Medication for this?

0 = No BD70b_w2
 1 = Yes

70c. Is this condition bothering you currently?

0 = No BD70c_w2
 1 = Yes

71. Chronic Bronchitis?

0 = No BD71_w2
 1 = Yes

71a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No BD71a_w2
 1 = Yes

71b. Taking Medication for this?

0 = No BD71b_w2
 1 = Yes

71c. Is this condition bothering you currently?

0 = No BD71c_w2
 1 = Yes

72. Other respiratory disease?

BD72_w2

72a. Specify (text)

BD72a_w2

72b. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No BD72b_w2
 1 = Yes

72c. Taking Medication for this?

0 = No BD72c_w2
 1 = Yes

72d. Is this condition bothering you currently?

0 = No BD72d_w2
 1 = Yes

73. Liver or gallbladder disease?

0 = No BD73_w2
 1 = Yes

73a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No BD73a_w2
 1 = Yes

73b. Taking Medication for this?

0 = No
1 = Yes

BD73b_w2

73c. Is this condition bothering you currently?

0 = No
1 = Yes

BD73c_w2

74. Kidney disease?

0 = No
1 = Yes

BD74_w2

74a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No
1 = Yes

BD74a_w2

74b. Taking Medication for this?

0 = No
1 = Yes

BD74b_w2

74c. Is this condition bothering you currently?

0 = No
1 = Yes

BD74c_w2

75. Ulcer (stomach, duodenal, or peptic)?

0 = No
1 = Yes

BD75_w2

75a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No
1 = Yes

BD75a_w2

75b. Taking Medication for this?

0 = No
1 = Yes

BD75b_w2

75c. Is this condition bothering you currently?

0 = No
1 = Yes

BD75c_w2

76. Irritable Bowel Syndrome?

0 = No
1 = Yes

BD76_w2

76a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No
1 = Yes

BD76a_w2

76b. Taking Medication for this?

0 = No

BD76b_w2

1 = Yes

76c. Is this condition bothering you currently?

0 = No

BD76c_w2

1 = Yes

77. Ulcerative colitis?

0 = No

BD77_w2

1 = Yes

77a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD77a_w2

1 = Yes

77b. Taking Medication for this?

0 = No

BD77b_w2

1 = Yes

77c. Is this condition bothering you currently?

0 = No

BD77c_w2

1 = Yes

78. Diverticular disease?

0 = No

BD78_w2

1 = Yes

78a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD78a_w2

1 = Yes

78b. Taking Medication for this?

0 = No

BD78b_w2

1 = Yes

78c. Is this condition bothering you currently?

0 = No

BD78c_w2

1 = Yes

79. Crohn's disease?

0 = No

BD79_w2

1 = Yes

79a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD79a_w2

1 = Yes

79b. Taking Medication for this?

0 = No

BD79b_w2

1 = Yes

79c. Is this condition bothering you currently?

0 = No

1 = Yes

BD79c_w2

80. Other gastrointestinal disease?

0 = No

1 = Yes

BD80_w2

80a. Specify

Text

BD80a_w2

80b. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

1 = Yes

BD80b_w2

80c. Taking Medication for this?

0 = No

1 = Yes

BD80c_w2

80d. Is this condition bothering you currently?

0 = No

1 = Yes

BD80d_w2

81. Parkinson's Disease?

0 = No

1 = Yes

BD81_w2

81a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

1 = Yes

BD81a_w2

81b. Taking Medication for this?

0 = No

1 = Yes

BD81b_w2

81c. Is this condition bothering you currently?

0 = No

1 = Yes

BD81c_w2

82. Dementia?

0 = No

1 = Yes

BD82_w2

82a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

1 = Yes

BD82a_w2

82b. Taking Medication for this?

0 = No

BD82b_w2

1 = Yes

82c. Is this condition bothering you currently?

0 = No

BD82c_w2

1 = Yes

83. Alzheimer’s disease?

BD83_w2

0 = No

1 = Yes

83a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD83a_w2

1 = Yes

83b. Taking Medication for this?

0 = No

BD83b_w2

1 = Yes

83c. Is this condition bothering you currently?

0 = No

BD83c_w2

1 = Yes

84. Mild cognitive impairment?

0 = No

BD84_w2

1 = Yes

84a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD84a_w2

1 = Yes

84b. Taking Medication for this?

0 = No

BD84b_w2

1 = Yes

84c. Is this condition bothering you currently?

0 = No

BD84c_w2

1 = Yes

85. Cancer?

0 = No

BD85_w2

1 = Yes

85a. Type of Cancer:

BD85a_w2

Leukemia, Blood	BD85a_1_w2
Bone	BD85a_2_w2

Brain	BD8a5_3_w2
Breast	BD85a_4_w2
Cervix	BD85a_5_w2
Colon	BD85a_6_w2
Rectum	BD85a_7_w2
Esophagus	BD85a_8_w2
Gallbladder	BD85a_9_w2
Kidney	BD85a_10_w2
Mouth/tongue/lip	BD85a_11_w2
Larynx-windpipe	BD85a_12_w2
Throat-pharynx	BD85a_13_w2
Stomach	BD85a_14_w2
Liver	BD85a_15_w2
Lung	BD85a_16_w2
Lymphoma	BD85a_17_w2
Melanoma	BD85a_18_w2
Skin (non-melanoma)	BD85a_19_w2
Skin (Don't Know what kind)	BD85a_20_w2
Ovary	BD85a_21_w2
Uterus	BD85a_22_w2
Pancreas	BD85a_23_w2
Prostate	BD85a_24_w2
Testicular	BD85a_25_w2
Soft tissue (muscle or fat)	BD85a_26_w2
Thyroid	BD85a_27_w2
Other	BD85a_28_w2

85b. Other (specify)

BD85b_w2

Text

85c. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD85c_w2

1 = Yes

85d. Taking Medication for this?

0 = No

BD85d_w2

1 = Yes

85e. Is this condition bothering you currently?

0 = No

BD85e_w2

1 = Yes

86. Eye disease: Cataract or Glaucoma?

0 = No

BD86_w2

1 = Yes

86a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD86a_w2

1 = Yes

86b. Taking Medication for this?

0 = No

BD86b_w2

1 = Yes

86c. Is this condition bothering you currently?

0 = No

BD86c_w2

1 = Yes

87. Anxiety?

BD87_w2

0 = No

1 = Yes

87a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD87a_w2

1 = Yes

87b. Taking Medication for this?

0 = No

BD87b_w2

1 = Yes

87c. Is this condition bothering you currently?

0 = No

BD87c_w2

1 = Yes

88. Depression?

BD88_w2

0 = No

1 = Yes

88a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD88a_w2

1 = Yes

88b. Taking Medication for this?

0 = No

BD87b_w2

1 = Yes

88c. Is this condition bothering you currently?

0 = No

BD88c_w2

1 = Yes

89. Seizures, Convulsions?

BD89_w2

0 = No

1 = Yes

89a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No BD89a_w2

1 = Yes

89b. Taking Medication for this?

0 = No BD89b_w2

1 = Yes

89c. Is this condition bothering you currently?

0 = No BD88c_w2

1 = Yes

90. Hepatitis (Type A, B, or C)?

BD90_w2

0 = No

1 = Yes

90a. Type of Hepatitis:

BD90a_w2

1 = A

2 = B

3 = C

90b. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No BD90b_w2

1 = Yes

90c. Taking Medication for this?

0 = No BD90c_w2

1 = Yes

90d. Is this condition bothering you currently?

0 = No BD90d_w2

1 = Yes

91. AIDS / HIV positive?

0 = No BD91_w2

1 = Yes

91a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No BD91a_w2

1 = Yes

91b. Taking Medication for this?

0 = No BD91b_w2

1 = Yes

91c. Is this condition bothering you currently?

0 = No

BD91c_w2

1 = Yes

92. Other Medical Diagnosis (specify)

Text

BD92_w2

92a. Did you receive this medical diagnoses after our last interview in _____ ?

0 = No

BD92a_w2

1 = Yes

92b. Taking Medication for this?

0 = No

BD92b_w2

1 = Yes

92c. Is this condition bothering you currently?

0 = No

BD92c_w2

1 = Yes

GREYED VARIABLES IN THE CODEBOOK ARE NOT PRESENT IN THE RELEASED DATASET

Studyid: Unique Subject Identifier

V00002_BD2: The date when the survey interview was conducted.

SCAN_DT_BD2: Date of Bone DXA Scan

FEMALE_BD2: Gender of the subject

1: female

0: male

Exam_Ht_BD2: Height measured using Stadiometer (in cm)

HTM_BD: Height measured using Stadiometer (in mts)

Exam_Ht/100

WTKG_BD2: Weight measured in kg

Derived Variables

**** Three Indicator variables were created to flag all those subjects who have a large duration between their dates of survey interview, blood collection, urine collection, Bone DXA Scan.*

Blood_Survey_Indicator_BD2: If the duration between `specdate_b_bd` (Date the blood specimen was drawn) and `V00002` (The Date when the survey interview was conducted) is greater than or equal to a year then this indicator's value will be 1, else it will be 0.

Scan_Survey_Indicator_BD2: If the difference between the `SCAN_DT_BD` (Date of Bone DXA Scan) & `V00002` is greater than or equal to a year then this value will be 1, else it will be 0.

Urine_Survey_Indicator_BD2: If the difference between the `specdate_u_bd` (Date when the Urine specimen was drawn) and `V00002` is greater than or equal to a year then this value will be 1, else it will be 0.

AGE_BD2: Calculated from Bone DXA Scan and birth date (From Scan Database)

BMI_BD2: Body Mass Index

$BMI_BD = WTKG_BD / (HTM_BD * HTM_BD)$
 Where `WTKG_BD` is the weight in kg
`HTM_BD` is the height in meter

BMIZZ_BD2 (NIH 2000)

0: $0 \leq BMI < 25$
 1: $25 \leq BMI < 30$
 2: $30 \leq BMI$

BMIZZ2_BD2

0: $0 \leq BMI < 18.5$
 1: $18.5 \leq BMI < 25$
 2: $25 \leq BMI < 30$
 3: $30 \leq BMI < 35$
 4: $35 \leq BMI < 40$
 5: $40 \leq BMI$

CRPZZ_BD2 *CRP (Pearson et al 2003);

0: $0 \leq CRP < 1$
 1: $1 \leq CRP \leq 3$
 2: $3 < CRP < 10$
 3: $10 \leq CRP$

CRPZZ2_BD2 *CRP (NHANES 1999-2000)

0: Male: $(AGE > 59 \text{ and } CRP < 4.9) \text{ or } (AGE \leq 59 \text{ and } CRP < 4.6)$
 Female: $(AGE > 59 \text{ and } CRP < 7.3) \text{ or } (AGE \leq 59 \text{ and } CRP < 8.4)$
 1: Male: $(AGE > 59 \text{ and } CRP \geq 4.9) \text{ or } (AGE \leq 59 \text{ and } CRP \geq 4.6)$
 Female: $(AGE > 59 \text{ and } CRP \geq 7.3) \text{ or } (AGE \leq 59 \text{ and } CRP \geq 8.4)$

ALBZZ_BD2 (Visser et al. 2005)

1: $ALB < 3.8$
 0: Male: $3.8 \leq ALB \leq 5.4$
 Female: $3.8 \leq ALB \leq 5.3$

CREATZZ_BD2 (Shlipak et al. 2002)

0: Male: $0 \leq CREAT < 1.5$
 Female: $0 \leq CREAT < 1.3$
 1: Male: $CREAT \geq 1.5$
 Female: $CREAT \geq 1.3$

CREAT_IDMS_BD2

$-0.03339 + (1.01127 * creat)$

CREATZZ_IDMS_BD2

0: Male: $0 \leq CREAT_IDMS < 1.5$

Female: $0 \leq CREAT_IDMS < 1.3$

1: Male: $CREAT_IDMS \geq 1.5$

Female: $CREAT_IDMS \geq 1.3$

SEASON_SCN_BD2: Season in which the Bone Scan was performed

1 = winter (December – January - February)

2 = spring (March- April- May)

3 = summer (June- July – August)

4= fall (September – October- November)

MONTHS_BD2: Month of Bone Scan

DERIVED MEDICATIONS:

The following variables take into consideration all the coded medications, either specified as one of the checked options or mentioned in the specify field.

- **mVitD_Total_BD2 :** Taking Total Vitamin-D: obtained from any supplementation source
 - 1=Yes
 - 0=No
- **mVitD_total_D_BD2:** Length of Use of Total Vitamin-D: obtained from any supplementation source
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs
- **mVitD_BD2:** Taking prescribed Vitamin-D: obtained from Vitamin-D (only) prescribed medication list
 - 1=Yes
 - 0=No
- **mVitD_D_BD2:** Length of Use of prescribed Vitamin-D: obtained from Vitamin-D (only) prescribed medication list.
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs
- **mCa_total_BD2:** Taking Calcium - obtained from any supplementation source.
 - 1=Yes
 - 0=No
- **mCa_total_D_BD2:** Length of Use of Calcium - obtained from any supplementation source
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs
- **mCa_BD2:** Taking Prescribed Calcium- obtained from Calcium (only) prescribed medication list

- 1=Yes
 - 0=No
- **mCa_D_BD2:** Length of Use of Prescribed Calcium - obtained from (only) prescribed medication list
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs
- **mCaD_BD2:** Taking prescribed (Calcium+Vitamin D)
 - 1=Yes
 - 0=No
- **mCaD_D_BD2:** Length of Use of prescribed (Calcium+Vitamin D)
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs
- **mvit_BD2:** Taking any Supplements including Vitamins & Minerals
 - 1=Yes
 - 0=No
- **mvit_D_BD2:** Length of Use of any supplement including vitamins and minerals (Vitamins & Minerals)
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs
- **Mmultv_BD2:** Taking a Multivitamin
 - 1=Yes
 - 0=No
- **mmultv_d_BD2:** Length of Use of a Multivitamin supplement
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs
- **miron_BD2:** Taking Iron
 - 1=Yes
 - 0=No
- **miron_d_BD2:** Length of Use of Iron
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs
- **mvitEsupp_BD2:** Taking Vitamin-E: obtained from any supplementation source
 - 1=Yes
 - 0=No
- **mvitesupp_D_BD2:** Duration of Vitamin-E: obtained from any supplementation source
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs

- **mvitAsupp_BD2:** Taking Vitamin-A: obtained from any supplementation source
 - 1=Yes
 - 0=No
- **mvitAsupp_D_BD2:** Duration of Vitamin-A: obtained from any supplementation source
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs

- **Mzincsupp_BD2:** Taking Zinc: Obtained from any supplementation source
 - 1=Yes
 - 0=No
- **mzincsupp_d_BD2:** Length of Zinc Use: obtained from any supplementation source
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs

- **momega3_BD2:** Taking Omega-3: Obtained from any supplementation source
 - 1=Yes
 - 0=No
- **momega3_D_BD2:** Length of Omega-3: Obtained from any supplementation source
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs

- **momega6_BD2:** Taking Omega-6: Obtained from any supplementation source
 - 1=Yes
 - 0=No
- **momega6_D_BD2:** Length of Omega-6: Obtained from any supplementation source
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs

- **mvitB12supp_BD2:** Taking Vitamin-B12: Obtained from any supplementation source
 - 1=Yes
 - 0=No
- **mvitB12supp_d_BD2:** Length of Vitamin-B12: Obtained from any supplementation source
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs

- **Mnsaid_BD2:** Taking NSAID
 - 1=Yes
 - 0=No
- **mnsaid_d_BD2:** Length of NSAID Use
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs

- **mmisc_BD2:** Taking miscellaneous drugs
 - 1=Yes
 - 0=No
- **mmisc_d_BD2:** Length of miscellaneous drugs use
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs

Bone Medications: Inhibitor of Bone Resorption:

- **Alendronate_BD2:** Taking Alendronate
 - 1=Yes
 - 0=No
- **Alendronate_D_BD2:** Length of Use of Alendronate
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs
- **Calcitonin_BD2:** Taking Calcitonin
 - 1=Yes
 - 0=No
- **Calcitonin_D_BD2:** Length of Use of Calcitonin
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs
- **Mbone_BD2:** Derived: bone resorption medications including: Alendronate, Risedronate (Actonel), Calcitonin Injection, Nasal Calcitonin, Fosamax, Didronal (Etidronate) and Tamoxifen.
 - 1=Yes
 - 0=No
- **mbone_d_BD2:** Length of Use of Bone Resorption medications (Calcitonin & Alendronate)
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs

Hormonal use (Women only):

- **Estradiolmed_BD2:** Taking Estradiol (Women only)
 - 1=Yes
 - 0=No
- **Estradiolmed_d_BD2:** Length of Estradiol use (Women only)
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs
- **Progesterone_BD2:** Taking Progesterone (Women only)
 - 1=Yes
 - 0=No
- **Progesterone_d_BD2:** Length of Progesterone use (Women only)
 - 1 = <1 yr
 - 2 = 1-5 yrs

- 3 = 5 yrs
- **Estrogen_Agonist_BD2:** Taking Estrogen Agonist (Women only)
 - 1=Yes
 - 0=No
- **Estrogen_Agonist_d_BD2:** Length of Estrogen Agonist Use (Women only)
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs
- **MHORM_BD2:** Derived: Taking hormones including: Premarin, Prempro, Premphase, Estratab, Menest, Estrace, Estraderm Vivelle, Ogen, Ortho-Est, Evista, Tamoxifen, Provera, and Progesterone (all medications listed on question BD18a-j)
 - 1=Yes
 - 0=No
- **MHORM_D_BD2:** Duration of the hormones use. If a subject takes more than one hormone then the maximum duration out of those hormones' durations will be considered.
 - 1 = <1 yr
 - 2 = 1-5 yrs
 - 3 = 5 yrs

OSTEOPOROSIS/OSTEOPONIA DEFINITIONS:

- **FEMUR NECK: Osteocat_femurNECK_BD2**
 - 1=Osteoporosis
 - 2=Osteopenia
 - 3=Normal
- **SPINE L2-L4: Osteocat_spinel2_L4_BD2**
 - 1=Osteoporosis
 - 2=Osteopenia
 - 3=Normal

LAB DATA - BLOOD

specdate_b_BD2: Date the blood specimen was drawn

spectime_b_BD2: Time when the blood specimen was drawn

specperiod_b_BD2: Indicates if the subject was fasting/non-fasting before the blood draw

specnotes_b_BD2: Blood Specimen Notes

pdate_b_BD2: Date when the blood specimen was processed/entered in the HNRC Database

vitd_BD2: VIT D, 25(OH) RIA (ng/ml)

Note: vitd_bd2 is the average of serum 25(OH)D levels from the BPRHS baseline (wave 1) and BPROS wave 1. It was NOT measured in BPROS wave 2

albumin_BD2: albumin (g/dL)

ntxserum_BD2: NTX, serum NM BCE

osteocal_BD2: osteocalcin (ng/ml)

crp_BD2: hs_CRP (mg/L)

pth_BD2:PTH (pg/ml)

testo_BD2: testosterone

estradiol_BD2: Estradiol (pg/ml)
igf1_BD2: insulin-like growth factor
calmgdl_BD2: CALCIUM (mg/dl)
TNF_BD2: TNF (pg/ml)
IL6_BD2: Interleukin 6
il1beta_BD2: Serum IL-1B (pg/mL)

LAB DATA – URINE

speccdate_u_BD2: Date range (24 hr period) when the Urine specimen was collected
spectime_u_BD2: Time range between which the Urine Specimen was collected
specperiod_u_BD2: Indicates the period of urine collection (Should be 24 hr as per the protocol)
specnotes_u_BD2: Urine Specimen Notes
pdate_u_BD2: Date when the urine sample was processed/entered in the HNRC Database

urinevol_BD2: URINE VOLUME (ml/24HRS)
creatconc_BD2: CREATININE CONCENTRATION (mg/dl)
creatconc_c_BD2: Creatinine Concentration Comments
createxc_BD2: CREATININE EXCRETION (G/24HRS)
createxc_c_BD2: Creatinine Excretion Comments
calconc_BD2: CALCIUM CONCENTRATION (mg/dl)
calconc_c_BD2: Calcium Concentration Comments
calexc_BD2: CALCIUM EXCRETION (mg/24HOUR)
calexc_c_BD2: Calcium Excretion Comments
cacreatexc_BD2: CALCIUM 24-HR EXCRETION ADJ. FOR CREATININE EXCRETION (mg/G CREATININE)
cacreatexc_c_BD2: Calcium Excretion Adj. Comments
sodconc_BD2: SODIUM CONCENTRATION (mg/dl)
sodconc_c_BD2: Sodium Concentration Comments
sodexc_BD2: SODIUM EXCRETION (MG/24 HRS)
sodexc_c_BD2: Sodium Excretion Comments
nacreatexc_BD2: SODIUM 24-HR EXCRETION ADJ. FOR CREATININE EXCRETION (MG/G CREATININE)
nacreatexc_c_BD2: Sodium 24-hr Excretion Adj. Comments
potassium_BD2: POTASSIUM (mg/dl)
potassium_c_BD2: Potassium Comments
potexc_BD2: POTASSIUM EXCRETION (MG/24 HR)
potexc_c_BD2: Potassium Excretion Comments
kcreatexc_BD2: POTASSIUM 24-HR EXCRETION ADJ. FOR CREATININE EXCRETION (MG/G CREATININE)
kcreatexc_c_BD2: Potassium 24-hr excretion adj. Comments
urinenitrgmgml_BD2: NITROGEN URINE UNIT ((mg/ml)
urinenitrgmgml_c_BD2: Nitrogen Urine Comments
urinenitrghr_BD2: Urine NITROGEN (G/24HR)
urinenitrghr_c_BD2: Urine Nitrogen Comments

SCAN DATA

Variable	Label
pat_handle_BD2	pat_handle
scan_height_BD2	Height (m)

scan_weight_BD2	Weight (kg)
Ethnic_BD2	Ethnicity
Avgfat_BD2	avg_percent_fat
Avgtis_BD2	avg_tissue_thickness
Scandob_BD2	Date of Birth at Scan Visit
Comments_BD2	Comments
BONE MASS MEASUREMENTS BY SITE	
bonemass_android_BD2	Bone mass android (bmc, g)
bonemass_arms_BD2	Bone mass arms (bmc, g)
bonemass_leftarm_BD2	Bone mass left arm (bmc, g)
bonemass_rightarm_BD2	Bone mass right arm (bmc, g)
bonemass_armdiff_BD2	Bone mass difference Left arm vs Right arm (bmc, g)
bonemass_gynoid_BD2	Bone mass gynoid (bmc, g)
bonemass_head_BD2	Bone mass head (bmc, g)
bonemass_legs_BD2	Bone mass legs (bmc, g)
bonemass_leftleg_BD2	Bone mass left leg (bmc, g)
bonemass_rightleg_BD2	Bone mass right leg (bmc, g)
bonemass_legsdiff_BD2	Bone mass difference Left leg vs Right leg (bmc, g)
bonemass_pelvis_BD2	Bone mass pelvis (bmc, g)
bonemass_ribs_BD2	Bone mass ribs (bmc, g)
bonemass_spine_BD2	Bone mass spine (bmc, g)
bonemass_lefttrunk_BD2	Bone mass left trunk (bmc, g)
bonemass_righttrunk_BD2	Bone mass right trunk (bmc, g)
bonemass_trunkdiff_BD2	Bone mass difference Left trunk vs Right trunk (bmc, g)
bonemass_lefttotal_BD2	Total bone mass left side (bmc, g)
bonemass_righttotal_BD2	Total bone mass right side (bmc, g)
bonemass_bodydiff_BD2	Bone mass difference Left body vs Right body (bmc, g)
bonemass_total_BD2	Total bone mass (bmc, g)
LEAN MASS MEASUREMENTS BY SITE	
leanmass_android_BD2	Lean mass android (g)
leanmass_arms_BD2	Lean mass arms (g)
leanmass_leftarm_BD2	Lean mass left arm (g)
leanmass_rightarm_BD2	Lean mass right arm (g)
leanmass_armdiff_BD2	Lean mass difference Left arm vs Right arm (g)
leanmass_gynoid_BD2	Lean mass gynoid (g)
leanmass_head_BD2	Lean mass head (g)
leanmass_legs_BD2	Lean mass legs (g)
leanmass_leftleg_BD2	Lean mass left leg (g)
leanmass_rightleg_BD2	Lean mass right leg (g)
leanmass_legsdiff_BD2	Lean mass difference Left leg vs Right leg (g)
leanmass_pelvis_BD2	Lean mass pelvis (g)
leanmass_ribs_BD2	Lean mass ribs (g)
leanmass_spine_BD2	Lean mass spine (g)
leanmass_trunk_BD2	Lean mass trunk (g)
leanmass_lefttrunk_BD2	Lean mass left trunk (g)
leanmass_righttrunk_BD2	Lean mass right trunk (g)
leanmass_trunkdiff_BD2	Lean mass difference Left trunk vs Right trunk (g)

leanmass_lefttotal_BD2	Total lean mass left side (g)
leanmass_righttotal_BD2	Total lean mass right side (g)
leanmass_bodydiff_BD2	Lean mass difference Left body vs Right body (g)
leanmass_total_BD2	Total lean mass (g)
FAT MASS MEASUREMENTS BY SITE	
fatmass_android_BD2	Fat mass android (g)
fatmass_arms_BD2	Fat mass arms (g)
fatmass_leftarm_BD2	Fat mass left arm (g)
fatmass_rightarm_BD2	Fat mass right arm (g)
fatmass_armdiff_BD2	Fat mass difference Left arm vs Right arm (g)
fatmass_gynoid_BD2	Fat mass gynoid (g)
fatmass_head_BD2	Fat mass head (g)
fatmass_legs_BD2	Fat mass legs (g)
fatmass_leftleg_BD2	Fat mass left leg (g)
fatmass_rightleg_BD2	Fat mass right leg (g)
fatmass_legsdiff_BD2	Fat mass difference Left leg vs Right leg (g)
fatmass_pelvis_BD2	Fat mass pelvis (g)
fatmass_ribs_BD2	Fat mass ribs (g)
fatmass_spine_BD2	Fat mass spine (g)
fatmass_trunk_BD2	Fat mass trunk (g)
fatmass_lefttrunk_BD2	Fat mass left trunk (g)
fatmass_righttrunk_BD2	Fat mass right trunk (g)
fatmass_trunkdiff_BD2	Fat mass difference Left trunk vs Right trunk (g)
fatmass_bodydiff_BD2	Fat mass difference Left body vs Right body (g)
fatmass_lefttotal_BD2	Total fat mass left side (g)
fatmass_righttotal_BD2	Total fat mass right side (g)
fatmass_total_BD2	Total fat mass (g)
BONE MINERAL COMPOSITION BY SITE	
bmc_bodyANDROID_BD2	BMC android (g)
bmc_bodyGYNOID_BD2	BMC gynoid (g)
bmc_bodyHEAD_BD2	BMC head (g)
bmc_bodyTRUNK_BD2	BMC trunk (g)
bmc_bodyLEFTTRUNK_BD2	BMC left trunk (g)
bmc_bodyRIGHTTRUNK_BD2	BMC right trunk (g)
bmc_bodySPINE_BD2	BMC spine (g)
bmc_spineL1_BD2	BMC spine L1 (g)
bmc_spineL2_BD2	BMC spine L2 (g)
bmc_spineL3_BD2	BMC Spine L3 (g)
bmc_spineL4_BD2	BMC spine L4 (g)
bmc_spineL1_L2_BD2	BMC spine L1 to L2 (g)
bmc_spineL1_L3_BD2	BMC spine L1 to L3 (g)
bmc_spineL2_L4_BD2	BMC Spine L2 to L4 (g)
bmc_spineL3_L4_BD2	BMC spine L3 to L4 (g)
bmc_bodyRIBS_BD2	BMC ribs (g)
bmc_bodyPELVIS_BD2	BMC pelvis (g)
bmc_bodyARMS_BD2	BMC arms (g)
bmc_bodyLEFTARM_BD2	BMC left arm (g)

bmc_bodyRIGHTARM_BD2	BMC right arm (g)
bmc_bodyLEGS_BD2	BMC legs (g)
bmc_bodyLEFTLEG_BD2	BMC left leg (g)
bmc_bodyRIGHTLEG_BD2	BMC right leg (g)
bmc_femurTOTAL_BD2	BMC femur total (g)
bmc_femurUPNECK_BD2	BMC femur upper neck (g)
bmc_femurLOWNECK_BD2	BMC femur lower neck (g)
bmc_femurNECK_BD2	BMC femur neck (g)
bmc_femurWARDS_BD2	BMC femur wards (g)
bmc_femurTROCH_BD2	BMC femur troch (g)
bmc_femurSHAFT_BD2	BMC femur shaft (g)
bmc_bodyHEADLESSTOTAL_BD2	BMC total body minus head (g)
bmc_bodyLEFTTOTAL_BD2	BMC left body total (g)
bmc_bodyRIGHTTOTAL_BD2	BMC right body total (g)
bmc_bodyTOTAL_BD2	BMC total body (g)
BONE MINERAL DENSITY BY SITE	
bmd_bodyANDROID_BD2	BMD android (g/cm ²)
bmd_bodyGYNOID_BD2	BMD gynoid (g/cm ²)
bmd_bodyHEAD_BD2	BMD Head (g/cm ²)
bmd_bodyTRUNK_BD2	BMD trunk (g/cm ²)
bmd_bodyLEFTTRUNK_BD2	BMD left trunk (g/cm ²)
bmd_bodyRIGHTTRUNK_BD2	BMD right trunk (g/cm ²)
bmd_bodySPINE_BD2	BMD spine (g/cm ²)
bmd_spineL1_BD2	BMD spine L1 (g/cm ²)
bmd_spineL2_BD2	BMD spine L2 (g/cm ²)
bmd_spineL3_BD2	BMD Spine L3 (g/cm ²)
bmd_spineL4_BD2	BMD spine L4 (g/cm ²)
bmd_spineL1_L2_BD2	BMD spine L1 to L2 (g/cm ²)
bmd_spineL1_L3_BD2	BMD spine L1 to L3 (g/cm ²)
bmd_spineL2_L4_BD2	BMD Spine L2 to L4 (g/cm ²)
bmd_spineL3_L4_BD2	BMD spine L3 to L4 (g/cm ²)
bmd_bodyRIBS_BD2	BMD ribs (g/cm ²)
bmd_bodyPELVIS_BD2	BMD pelvis (g/cm ²)
bmd_femurNECK_BD2	BMD femur neck (g/cm ²)
bmd_femurUPNECK_BD2	BMD femur upper neck (g/cm ²)
bmd_femurLOWNECK_BD2	BMD femur lower neck (g/cm ²)
bmd_femurWARDS_BD2	BMD femur wards (g/cm ²)
bmd_femurTROCH_BD2	BMD femur troch (g/cm ²)
bmd_femurSHAFT_BD2	BMD femur shaft (g/cm ²)
bmd_femurTOTAL_BD2	BMD femur total (g/cm ²)
bmd_bodyARMS_BD2	BMD arms (g/cm ²)
bmd_bodyLEFTARM_BD2	BMD left arm (g/cm ²)
bmd_bodyRIGHTARM_BD2	BMD right arm (g/cm ²)
bmd_bodyLEGS_BD2	BMD legs (g/cm ²)
bmd_bodyLEFTLEG_BD2	BMD left leg (g/cm ²)
bmd_bodyRIGHTLEG_BD2	BMD right leg (g/cm ²)
bmd_bodyLEFTTOTAL_BD2	BMD Left body total (g/cm ²)

bmd_bodyRIGHTTOTAL_BD2	BMD right body total (g/cm2)
bmd_bodyHEADLESSTOTAL_BD2	BMD total body minus head (g/cm2)
bmd_bodyTOTAL_BD2	BMD total body (g/cm2)
Z-SCORE BY SITE	
zscore_bodyANDROID_BD2	Android, Z score
zscore_bodyGYNOID_BD2	Gynoid, Z score
zscore_bodyHEAD_BD2	Head, Z score
zscore_bodyTRUNK_BD2	Trunk, Z score
zscore_bodyLEFTTRUNK_BD2	Left trunk, Z score
zscore_bodyRIGHTTRUNK_BD2	Right trunk, Z score
zscore_bodySPINE_BD2	Spine, Z score
zscore_spinel1_BD2	Spine L1 Z score
zscore_spinel2_BD2	Spine L2 Z score
zscore_spinel3_BD2	Spine L3 Z score
zscore_spinel4_BD2	Spine L4 Z score
zscore_spinel1_L2_BD2	Spine L1 to L2 Z score
zscore_spinel1_L3_BD2	Spine L1 to L3 Z score
zscore_spinel2_L4_BD2	Spine L2 to L4 Z score
zscore_spinel3_L4_BD2	Spine L3 to L4 Z score
zscore_bodyRIBS_BD2_BD2	Ribs, Z score
zscore_bodyPELVIS_BD2	Pelvis, Z score
zscore_bodyARMS_BD2	Arms, z score
zscore_bodyLEFTARM_BD2	Left arm, Z score
zscore_bodyRIGHTARM_BD2	Right arm, Z score
zscore_bodyLEGS_BD2	Legs, Z score
zscore_bodyLEFTLEG_BD2	Left leg, Z score
zscore_bodyRIGHTLEG_BD2	Right leg, Z score
zscore_femurTOTAL_BD2	Femur total, Z score
zscore_femurNECK_BD2	Femur neck, Z score
zscore_femurUPNECK_BD2	Femur upper neck, Z score
zscore_femurLOWNECK_BD2	Femur lower neck, Z score
zscore_femurWARDS_BD2	Femur wards, Z score
zscore_femurTROCH_BD2	Femur troch, Z score
zscore_femurSHAFT_BD2	Femur shaft, Z score
zscore_bodyHEADLESSTOTAL_BD2	Total body minus head, Z score
zscore_bodyLEFTTOTAL_BD2	Left body total, Z score
zscore_bodyRIGHTTOTAL_BD2	Right body total, Z score
zscore_bodyTOTAL_BD2	Total body, Z score
T-SCORE BY SITE	
tscore_bodyANDROID_BD2	Android, T score
tscore_bodyGYNOID_BD2	Gynoid, T score
tscore_bodyHEAD_BD2	Head, T score
tscore_bodyTRUNK_BD2	Trunk, T score
tscore_bodyLEFTTRUNK_BD2	Left trunk, T score
tscore_bodyRIGHTTRUNK_BD2	Right trunk, T score
tscore_bodySPINE_BD2	Spine, T score

tscore_spinel1_BD2	Spine L1 T score
tscore_spinel2_BD2	Spine L2 T score
tscore_spinel3_BD2	Spine L3 T score
tscore_spinel4_BD2	Spine L4 T score
tscore_spinel1_L2_BD2	Spine L1 to L2 T score
tscore_spinel1_L3_BD2	Spine L1 to L3 T score
tscore_spinel2_L4_BD2	Spine L2 to L4 T score
tscore_spinel3_L4_BD2	Spine L3 to L4 T score
tscore_bodyRIBS_BD2	Ribs, T score
tscore_bodyPELVIS_BD2	Pelvis, T score
tscore_bodyARMS_BD2	Arms, T score
tscore_bodyLEFTARM_BD2	Left arm, T score
tscore_bodyRIGHTARM_BD2	Right arm, T score
tscore_bodyLEGS_BD2	Legs, T score
tscore_bodyLEFTLEG_BD2	Left leg, T score
tscore_bodyRIGHTLEG_BD2	Right leg, T score
tscore_femurTOTAL_BD2	Femur total, T score
tscore_femurUPNECK_BD2	Femur upper neck, T score
tscore_femurLOWNECK_BD2	Femur lower neck, T score
tscore_femurNECK_BD2	Femur neck, T score
tscore_femurWARDS_BD2	Femur wards, T score
tscore_femurTROCH_BD2	Femur troch, T score
tscore_femurSHAFT_BD2	Femur shaft, T score
tscore_bodyLEFTTOTAL_BD2	Left body total, T score
tscore_bodyRIGHTTOTAL_BD2	Right body total, T score
tscore_bodyHEADLESSTOTAL_BD2	Total body minus head, T score
tscore_bodyTOTAL_BD2	Total body, T score
AREA BY SITE	
area_bodyANDROID_BD2	Area android (cm2)
area_bodyGYNOID_BD2	Area gynoid (cm2)
area_bodyHEAD_BD2	Area head (cm2)
area_bodyTRUNK_BD2	Area trunk (cm2)
area_bodyLEFTTRUNK_BD2	Area left trunk (cm2)
area_bodyRIGHTTRUNK_BD2	Area right trunk (cm2)
area_bodyRIBS_BD2	Area ribs (cm2)
area_bodySPINE_BD2	Area spine (cm2)
area_spinel1_BD2	Area spine L1 (cm2)
area_spinel2_BD2	Area spine L2 (cm2)
area_spinel3_BD2	Area Spine L3 (cm2)
area_spinel4_BD2	Area spine L4 (cm2)
area_spinel1_L2_BD2	Area spine L1 to L2 (cm2)
area_spinel1_L3_BD2	Area spine L1 to L3 (cm2)
area_spinel2_L4_BD2	Area spine L2 to L4 (cm2)
area_spinel3_L4_BD2	Area spine L3 to L4 (cm2)
area_bodyPELVIS_BD2	Area pelvis (cm2)
area_bodyARMS_BD2	Area arms (cm2)

area_bodyLEFTARM_BD2	Area left arm (cm2)
area_bodyRIGHTARM_BD2	Area right arm (cm2)
area_bodyLEGS_BD2	Area legs (cm2)
area_bodyLEFTLEG_BD2	Area left leg (cm2)
area_bodyRIGHTLEG_BD2	Area right leg (cm2)
area_femurTOTAL_BD2	Area femur total (cm2)
area_femurNECK_BD2	Area femur neck (cm2)
area_femurUPNECK_BD2	Area femur upper neck (cm2)
area_femurLOWNECK_BD2	Area femur lower neck (cm2)
area_femurWARDS_BD2	Area femur wards (cm2)
area_femurTROCH_BD2	Area femur troch (cm2)
area_femurSHAFT_BD2	Area femur shaft (cm2)
area_bodyLEFTTOTAL_BD2	Area left body total (cm2)
area_bodyRIGHTTOTAL_BD2	Area right body total (cm2)
area_bodyHEADLESSTOTAL_BD2	Area total body minus head (cm2)
area_bodyTOTAL_BD2	Area total body (cm2)
DESCRIPTION OF NORMAL BY SITE	
norm_bodyANDROID_BD2	Android, describes the normal
norm_bodyGYNOID_BD2	Gynoid, describes the normal
norm_bodyHEAD_BD2	Head, describes the normal
norm_bodyTRUNK_BD2	Trunk, describes the normal
norm_bodyLEFTTRUNK_BD2	Left trunk, describes the normal
norm_bodyRIGHTTRUNK_BD2	Right trunk, describes the normal
norm_bodyRIBS_BD2	Ribs, describes the normal
norm_bodySPINE_BD2	Spine, describes the normal
norm_spineL1_BD2	Spine L1, describes the normal
norm_spineL2_BD2	Spine L2, describes the normal
norm_spineL3_BD2	Spine L3, describes the normal
norm_spineL4_BD2	Spine L4, describes the normal
norm_spineL1_L2_BD2	Spine L1 to L2, describes the normal
norm_spineL1_L3_BD2	Spine L1 to L3, describes the normal
norm_spineL2_L4_BD2	Spine L2 to L4, describes the normal
norm_spineL3_L4_BD2	Spine L3 to L4, describes the normal
norm_bodyPELVIS_BD2	Pelvis, describes the normal
norm_bodyARMS_BD2	Arms, describes the normal
norm_bodyLEFTARM_BD2	Left arm, describes the normal
norm_bodyRIGHTARM_BD2	Right arm, describes the normal
norm_bodyLEGS_BD2	Legs, describes the normal
norm_bodyLEFTLEG_BD2	Left leg, describes the normal
norm_bodyRIGHTLEG_BD2	Right leg, describes the normal
norm_femurTOTAL_BD2	Femur total, describes the normal
norm_femurNECK_BD2	Femur neck, describes the normal
norm_femurUPNECK_BD2	Femur upper neck, describes the normal
norm_femurLOWNECK_BD2	Femur lower neck, describes the normal
norm_femurWARDS_BD2	Femur wards, describes the normal
norm_femurTROCH_BD2	Femur trochanter, describes the normal
norm_femurSHAFT_BD2	Femur shaft, describes the normal

norm_bodyLEFTTOTAL_BD2	Left body total, describes the normal
norm_bodyRIGHTTOTAL_BD2	Right body total, describes the normal
norm_bodyHEADLESSTOTAL_BD2	Total body minus head, describes the normal
norm_bodyTOTAL_BD2	Total body, describes the normal
REFERENCE POPULATION USED BY SITE	
pop_bodyANDROID_BD2	Android, reference population used
pop_bodyGYNOID_BD2	Gynoid, reference population used
pop_bodyHEAD_BD2	Head, reference population used
pop_bodyTRUNK_BD2	Trunk, reference population used
pop_bodyLEFTTRUNK_BD2	Left trunk, reference population used
pop_bodyRIGHTTRUNK_BD2	Right trunk, reference population used
pop_bodySPINE_BD2	Spine, reference population used
pop_spineL1_BD2	Spine L1 Reference population used
pop_spineL2_BD2	Spine L2 Reference population used
pop_spineL3_BD2	Spine L3 Reference population used
pop_spineL4_BD2	Spine L4 Reference population used
pop_spineL1_L2_BD2	Spine L1 to L2 reference population used
pop_spineL1_L3_BD2	Spine L1 to L3 reference population used
pop_spineL2_L4_BD2	Spine L2 to L4 reference population used
pop_spineL3_L4_BD2	Spine L3 to L4 reference population used
pop_bodyRIBS_BD2	Ribs, reference population used
pop_bodyPELVIS_BD2	Pelvis, reference population used
pop_bodyARMS_BD2	Arms, reference population used
pop_bodyLEFTARM_BD2	Left arm, reference population used
pop_bodyRIGHTARM_BD2	Right arm, reference population used
pop_bodyLEGS_BD2	Legs, reference population used
pop_bodyLEFTLEG_BD2	Left leg, reference population used
pop_bodyRIGHTLEG_BD2	Right leg, reference population used
pop_femurTOTAL_BD2	Femur total, reference population used
pop_femurNECK_BD2	Femur neck, reference population used
pop_femurUPNECK_BD2	Femur upper neck, reference population used
pop_femurLOWNECK_BD2	Femur lower neck, reference population used
pop_femurWARDS_BD2	Femur wards, reference population used
pop_femurTROCH_BD2	Femur troch, reference population used
pop_femurSHAFT_BD2	Femur shaft, reference population used
pop_bodyLEFTTOTAL_BD2	Left body total, reference population used
pop_bodyRIGHTTOTAL_BD2	Right body total, reference population used
pop_bodyHEADLESSTOTAL_BD2	Total body minus head, reference population used
pop_bodyTOTAL_BD2	Total body, reference population used
VERSION OF REFERENCE DATA USED BY SITE	
normver_bodyANDROID_BD2	Android, version of reference data used
normver_bodyGYNOID_BD2	Gynoid, version of reference data used
normver_bodyHEAD_BD2	Head, version of reference data used
normver_bodyTRUNK_BD2	Trunk, version of reference data used
normver_bodyLEFTTRUNK_BD2	Left trunk, version of reference data used
normver_bodyRIGHTTRUNK_BD2	Right trunk, version of reference data used
normver_bodySPINE_BD2	Spine, version of reference data used

normver_spinel1_BD2	Spine L1 version of reference data used
normver_spinel2_BD2	Spine L2 version of reference data used
normver_spinel3_BD2	Spine L3 version of reference data used
normver_spinel4_BD2	Spine L4 version of reference data used
normver_spinel1_L2_BD2	Spine L1 to L2 version of reference data used
normver_spinel1_L3_BD2	Spine L1 to L3 version of reference data used
normver_spinel2_L4_BD2	Spine L2 to L4 version of reference data used
normver_spinel3_L4_BD2	Spine L3 to L4 version of reference data used
normver_bodyRIBS_BD2	Ribs, version of reference data used
normver_bodyPELVIS_BD2	Pelvis, version of reference data used
normver_bodyARMS_BD2	Arms, version of reference data used
normver_bodyLEFTARM_BD2	Left arm, version of reference data used
normver_bodyRIGHTARM_BD2	Right arm, version of reference data used
normver_bodyLEGS_BD2	Legs, version of reference data used
normver_bodyLEFTLEG_BD2	Left leg, version of reference data used
normver_bodyRIGHTLEG_BD2	Right leg, version of reference data used
normver_femurTOTAL_BD2	Femur total, version of reference data used
normver_femurNECK_BD2	Femur neck, version of reference data used
normver_femurUPNECK_BD2	Femur upper neck, version of reference data used
normver_femurLOWNECK_BD2	Femur lower neck, version of reference data used
normver_femurWARDS_BD2	Femur wards, version of reference data used
normver_femurTROCH_BD2	Femur troch, version of reference data used
normver_femurSHAFT_BD2	Femur shaft, version of reference data used
normver_bodyLEFTTOTAL_BD2	Left body total, version of reference data used
normver_bodyRIGHTTOTAL_BD2	Right body total, version of reference data used
normver_bodyHEADLESSTOTAL_BD2	Total body minus head, version of reference data used
normver_bodyTOTAL_BD2	Total body, version of reference data used
AGE MATCHED ADJUSTED TO YOUNG NORMAL BY SITE	
adjust_bodyANDROID_BD2	Android, age matched adjusted to young normal
adjust_bodyGYNOID_BD2	Gynoid, age matched adjusted to young normal
adjust_bodyHEAD_BD2	Head, age matched adjusted to young normal
adjust_bodyTRUNK_BD2	Trunk, age matched adjusted to young normal
adjust_bodyLEFTTRUNK_BD2	Left trunk, age matched adjusted to young normal
adjust_bodyRIGHTTRUNK_BD2	Right trunk, age matched adjusted to young normal
adjust_bodySPINE_BD2	Spine, age matched adjusted to young normal
adjust_spinel1_BD2	Spine L1 age matched adjusted to young normal
adjust_spinel2_BD2	Spine L2 age matched adjusted to young normal
adjust_spinel3_BD2	Spine L3 age matched adjusted to young normal
adjust_spinel4_BD2	Spine L4 age matched adjusted to young normal
adjust_spinel1_L2_BD2	Spine L1 to L2 age matched adjusted to young normal
adjust_spinel1_L3_BD2	Spine L1 to L3 age matched adjusted to young normal
adjust_spinel2_L4_BD2	Spine L2 to L4 age matched adjusted to young normal
adjust_spinel3_L4_BD2	Spine L3 to L4 age matched adjusted to young normal
adjust_bodyRIBS_BD2	Ribs, age matched adjusted to young normal
adjust_bodyPELVIS_BD2	Pelvis, age matched adjusted to young normal
adjust_bodyARMS_BD2	Arms, age matched adjusted to young normal
adjust_bodyLEFTARM_BD2	Left arm, age matched adjusted to young normal

adjust_bodyRIGHTARM_BD2	Right arm, age matched adjusted to young normal
adjust_bodyLEGS_BD2	Legs, age matched adjusted to young normal
adjust_bodyLEFTLEG_BD2	Left leg, age matched adjusted to young normal
adjust_bodyRIGHTLEG_BD2	Right leg, age matched adjusted to young normal
adjust_femurTOTAL_BD2	Femur total, age matched adjusted to young normal
adjust_femurNECK_BD2	Femur neck, age matched adjusted to young normal
adjust_femurUPNECK_BD2	Femur upper neck, age matched adjusted to young normal
adjust_femurLOWNECK_BD2	Femur lower neck, age matched adjusted to young normal
adjust_femurWARDS_BD2	Femur wards, age matched adjusted to young normal
adjust_femurTROCH_BD2	Femur troch, age matched adjusted to young normal
adjust_femurSHAFT_BD2	Femur shaft, age matched adjusted to young normal
adjust_bodyLEFTTOTAL_BD2	Left body total, age matched adjusted to young normal
adjust_bodyRIGHTTOTAL_BD2	Right body total, age matched adjusted to young normal
adjust_bodyHEADLESSTOTAL_BD2	Total body minus head, age matched adjusted to young normal
adjust_bodyTOTAL_BD2	Total body, age matched adjusted to young normal
PERCENT YOUNG ADULT BY SITE	
perya_bodyANDROID_BD2	Android, percent young adult
perya_bodyGYNOID_BD2	Gynoid, percent young adult
perya_bodyHEAD_BD2	Head, percent young adult
perya_bodyTRUNK_BD2	Trunk, percent young adult
perya_bodyLEFTTRUNK_BD2	Left trunk, percent young adult
perya_bodyRIGHTTRUNK_BD2	Right trunk, percent young adult
perya_bodySPINE_BD2	Spine, percent young adult
perya_spineL1_BD2	Spine L1 percent young adult
perya_spineL2_BD2	Spine L2 percent young adult
perya_spineL3_BD2	Spine L3 percent young adult
perya_spineL4_BD2	Spine L4 percent young adult
perya_spineL1_L2_BD2	Spine L1 to L2 percent young adult
perya_spineL1_L3_BD2	Spine L1 to L3 percent young adult
perya_spineL2_L4_BD2	Spine L2 to L4 percent young adult
perya_spineL3_L4_BD2	Spine L3 to L4 percent young adult
perya_bodyRIBS_BD2	Ribs, percent young adult
perya_bodyPELVIS_BD2	Pelvis, percent young adult
perya_bodyARMS_BD2	Arms, percent young adult
perya_bodyLEFTARM_BD2	Left arm, percent young adult
perya_bodyRIGHTARM_BD2	Right arm, percent young adult
perya_bodyLEGS_BD2	Legs, percent young adult
perya_bodyLEFTLEG_BD2	Left leg, percent young adult
perya_bodyRIGHTLEG_BD2	Right leg, percent young adult
perya_femurNECK_BD2	Femur neck, percent young adult
perya_femurUPNECK_BD2	Femur upper neck, percent young adult
perya_femurLOWNECK_BD2	Femur lower neck, percent young adult
perya_femurWARDS_BD2	Femur wards, percent young adult
perya_femurTROCH_BD2	Femur troch, percent young adult
perya_femurSHAFT_BD2	Femur shaft, percent young adult
perya_femurTOTAL_BD2	Femur total, percent young adult
perya_bodyLEFTTOTAL_BD2	Left body total, percent young adult

perya_bodyRIGHTTOTAL_BD2	Right body total, percent young adult
perya_bodyHEADLESSTOTAL_BD2	Total body minus head, percent young adult
perya_bodyTOTAL_BD2	Total body, percent young adult
PERCENT AGE MATCHED BY SITE	
peram_bodyANDROID_BD2	Android, percent age matched
peram_bodyGYNOID_BD2	Gynoid, percent age matched
peram_bodyHEAD_BD2	Head, percent age matched
peram_bodyTRUNK_BD2	Trunk, percent age matched
peram_bodyLEFTTRUNK_BD2	Left trunk, percent age matched
peram_bodyRIGHTTRUNK_BD2	Right trunk, percent age matched
peram_bodySPINE_BD2	Spine, percent age matched
peram_spineL1_BD2	Spine L1 percent age matched
peram_spineL2_BD2	Spine L2 percent age matched
peram_spineL3_BD2	Spine L3 percent age matched
peram_spineL4_BD2	Spine L4 percent age matched
peram_spineL1_L2_BD2	Spine L1 to L2 percent age matched
peram_spineL1_L3_BD2	Spine L1 to L3 percent age matched
peram_spineL2_L4_BD2	Spine L2 to L4 percent age matched
peram_spineL3_L4_BD2	Spine L3 to L4 percent age matched
peram_bodyRIBS_BD2	Ribs, percent age matched
peram_bodyPELVIS_BD2	Pelvis, percent age matched
peram_bodyARMS_BD2	Arms, percent age matched
peram_bodyLEFTARM_BD2	Left arm, percent age matched
peram_bodyRIGHTARM_BD2	Right arm, percent age matched
peram_bodyLEGS_BD2	Legs, percent age matched
peram_bodyLEFTLEG_BD2	Left leg, percent age matched
peram_bodyRIGHTLEG_BD2	Right leg, percent age matched
peram_femurTOTAL_BD2	Femur total, percent age matched
peram_femurNECK_BD2	Femur neck, percent age matched
peram_femurUPNECK_BD2	Femur upper neck, percent age matched
peram_femurLOWNECK_BD2	Femur lower neck, percent age matched
peram_femurWARDS_BD2	Femur wards, percent age matched
peram_femurTROCH_BD2	Femur troch, percent age matched
peram_femurSHAFT_BD2	Femur shaft, percent age matched
peram_bodyLEFTTOTAL_BD2	Left body total, percent age matched
peram_bodyRIGHTTOTAL_BD2	Right body total, percent age matched
peram_bodyHEADLESSTOTAL_BD2	Total body minus head, percent age matched
peram_bodyTOTAL_BD2	Total body, percent age matched