

## **Supplementary file 1: Bone health screening questionnaire**

Name

DOB

Age

Contact email and mobile

If you have had DXA scan, please state

Lumbar spine (total L1-4) Z score T score

Femoral neck Z score T score

Background Information Height Weight

1. BMI (calculated)
2. Do you have any medical conditions?
3. Please list any prescribed medications you are taking
4. Please list any supplements you are taking
5. Do you/have you ever smoked?
6. How would you rate your sleep quality? Scale 0-5 where: 0=poor and 5= good sleep
7. How would you rate freshness/fatigue? Scale 0-5 where: 0=very fatigued and 5=totally fresh

### **Exercise**

8. How many hours do you exercise per week?
  - a. Weight bearing exercise (eg running, dancing)
  - b. Resistance exercise (eg S&C, Pilates, Yoga)
  - c. Non weight bearing (eg swimming, cycling)

### **Injuries**

9. If you have had any fractures, please list, stating site of fracture

### **Nutrition**

10. Are you vegetarian?
11. Are you vegan?
12. Have you ever been diagnosed as having RED-S (relative energy deficiency in sport)?
13. Have you ever had an eating disorder?
14. How many portions of dairy do you have per week on average? (where portion= carton yogurt, glass of milk (in tea/coffee/cereal), cheese serving etc)
15. How many cups of caffeinated coffee do you drink per day?
16. How many units of alcohol do you drink per week?

### **Females**

17. What age did your periods start?
18. If you have experienced 6 months or more without periods, for how many years was this the situation?
19. Are you on hormonal contraception? Please state what
20. What age did you reach menopause (if relevant)?
21. If you are menopausal, do you take HRT? Please name
22. Are your periods regular? (excluding withdrawal bleeds on combined oral contraceptive pill)
  - a. No, I am using hormonal contraception
  - b. More than 9 periods per year
  - c. Less than 9 periods per year
  - d. No periods for more than 6 months

### **Males**

23. To assess testosterone status, please state number of morning erections per week (on average) 0 to 7

## **Supplementary file 2: Scoring questionnaire for bone health**

Height Weight

1. BMI (calculated)

<20 score -1

<18 score -2

2. Do you have any medical conditions?  
-2 any eating disorder, FHA  
-1 amenorrhoea (not ED), DM, hyperthyroidism  
-1 RA, coeliac  
+1 None

3. Please list any prescribed medications you are taking  
-2 steroids  
-1 NSAID, PPI  
+1 None

4. Please list any supplements you are taking  
Yes: Vit D = +1

5. Do you/have you ever smoked?  
-1 yes  
+1 no

6. How would you rate your sleep quality? 0-5 where 0=poor and 5= good sleep  
-1 for 0  
0 for 3  
+1 for 5 23

7. How would you rate freshness/fatigue? 0-5 where 0=very fatigued and 5=totally fresh  
-1 for 0  
0 for 3  
+1 for 5

#### Exercise

8. How many hours do you exercise per week?  
a. Weight bearing exercise (eg running, dancing) 0 hrs = -1; 1-2 hrs = 0; 3-15 hrs = +1; >15 hrs = -1 score  
b. Resistance exercise (eg S&C, Pilates, Yoga) 0 hrs = 0; >0hrs = +1 score  
c. Non weight bearing (eg swimming, cycling) score = 0 Injures

9. If you have had any fractures, please list, stating site of fracture  
-3 trabecular rich (spine, sacrum, pelvis, calcaneus)  
-2 other sites (long bones eg legs, NOF)  
-1 trauma # Nutrition

10. Are you vegetarian? -1 yes +1 no

11. Are you vegan? -2 yes, +1 no

12. Have you ever been diagnosed as having RED-S (relative energy deficiency in sport)? Yes = -2, No = +1 (if already counted above under medical condition = 0)

13. Have you ever had an eating disorder? Yes = -2, No = +1 (if already counted above under medical condition = 0)

14. How many portions of dairy do you have per week on average? (where portion=carton yogurt, glass of milk (in tea/coffee/cereal), cheese serving etc)  
<7 = -1

15. How many cups of caffeinated coffee do you drink per day?  
>4 portions per day = -1

16. How many units of alcohol do you drink per week? As per FRAX®  
>3 units per day (21 units per week) = -1 Females

17. What age did your periods start?  
>16 years = -2,  
Otherwise +1

18. Are you periods regular? (excluding withdrawal bleeds on combined oral contraceptive pill)  
>9 per year (eumenorrhoea) = +1 pregnancy, menopause, COCP 0  
<9 (oligomenorrhoea) = -2  
>6 months no periods (secondary amenorrhoea) = -3

19. If you have experienced 6 months or more without periods, for how many years was this the situation?

20. Are you on hormonal contraception? Please state what

21. What age did you reach menopause (if relevant)?  
<45 yrs = -2  
<51 yrs = -1  
>51 yrs = +1  
>55 yrs = +2

22. If you are menopausal, do you take HRT? Please name  
Yes = +1  
No = -1

Males

23. To assess testosterone status, please state number of morning erections per week (on average) 0 to 7  
<2 = -2  
<4 = -1  
>4 = +1