



(Supplemental Digital Content 1)

The LEAF-Q

A questionnaire for female athletes

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The low energy availability in females questionnaire (LEAF –Q), focuses on physiological symptoms of insufficient energy intake. The following pages contain questions regarding injuries, gastrointestinal and reproductive function. We appreciate you taking the time to fill out the LEAF-Q and the reply will be treated as confidential.

Name: _____

Address: _____

E-mail: _____

Cell phone: _____

Sport: _____

• How old were you when you began to specialize in your sport?: _____ age

• What level of athlete are you?

Club

National team

Professional

Other

• Are you a full-time athlete? Yes No

• If not, what occupation do you have beside your sport?

Full time job

Part time job

Student

Other

• What is your maximal oxygen consumption (Vo_2 max)?

_____ ml/kg/min or

_____ l/min

I do not know/I have never measured it

- Your best results at World Championship, Olympic Games or World Cup?

1st to 3rd place

4th to 6th place

7th to 10th place

11th place or lower

I have never competed at this level

I don't remember

- Your normal amount of training in the preparation or basic period (not competition) on **average per month**:

_____ hours/month

- Age: _____(years)

- Height: _____(cm)

- Present weight: _____(kg)

- Your highest weight with your present height: _____ (kg)

- Your lowest weight with your present height: _____ (kg)

- What is your preferred body weight during competition? _____ (kg)

- What is your body fat percentage (if it has been measured)? _____ (%)

- Chronic illness (e.g. diabetes, Crohn's Disease)?

Yes No

If yes, which one (s)?

-
- Food allergy or intolerance (e.g. nut allergy, celiac disease, lactose intolerance)?

Yes No

If yes, which one (s)?

1. Injuries

Mark the response that most accurately describes your situation

A: Have you had absences from your training, or participation in competitions during the last year due to injuries?

- No, not at all Yes, once or twice Yes, three or four times Yes, five times or more

A1: If yes, for how many days absence from training or participation in competition due to injuries have you had in the last year?

- 1-7 days 8-14 days 15-21 days 22 days or more

A2.1: If yes, have you had a bone stress injury? Yes No

If yes, specify how many _____

Specify the location(s): femoral neck total hip sacrum pelvis other site(s)

A2.2: If yes, have you had other types over load injuries? Yes No

If yes, specify how many and location? _____

A2.3: If yes, have you had an acute injury? Yes No

If yes, specify how many and location? _____

2. Gastro intestinal function

A: Do you feel gaseous or bloated in the abdomen, also when you do not have your period?

- Yes, several times a day Yes, several times a week
 Yes, once or twice a week or more seldom Rarely or never

B: Do you get cramps or stomach ache which cannot be related to your menstruation?

- Yes, several times a day Yes, several times a week
 Yes, once or twice a week or more seldom Rarely or never

C: How often do you have bowel movements on average?

- Several times a day Once a day Every second day
 Twice a week Once a week or more rarely

D: How would you describe your normal stool?

- Normal (soft) Diarrhoea-like (watery) Hard and dry

Comments regarding gastrointestinal function: _____

3. Menstrual function and use of contraceptives

3.1 Contraceptives

Mark the response that most accurately describes your situation

A: Do you use oral contraceptives?

- Yes No

A1: If yes, why do you use oral contraceptives?

- Contraception Reduction of menstruation pains Reduction of bleeding
- To regulate the menstrual cycle in relation to performances etc..
- Otherwise menstruation stops
- Other _____
- _____

A2: If no, have you used oral contraceptives earlier?

- Yes No

A2:1 If yes, when and for how long? _____

B: Do you use any other kind of hormonal contraceptives? (e.g. hormonal implant or coil)

- Yes No

B1: If yes, what kind?

- Hormonal patches Hormonal ring Hormonal coil Hormonal implant Other
- _____

3.2 Menstrual function

Mark the response that most accurately describes your situation

A: How old were when you had your first period?

- 11 years or younger 12-14 years 15 years or older I don't remember
- I have never menstruated (If you have answered "I have never menstruated" there are no further questions to answer)
-

B: Did your first menstruation come naturally (by itself)?

- Yes No I don't remember

B1: If no, what kind of treatment was used to start your menstrual cycle?

- Hormonal treatment Weight gain
- Reduced amount of exercise Other
-

C: Do you have normal menstruation?

- Yes No (**go to question C6**) I don't know (**go to question C6**)

C1: If yes, when was your last period?

- 0-4 weeks ago 1-2 months ago 3-4 months ago 5-6 months ago more than 6 months ago
- 12 months ago or more

C2: If yes, are your periods regular? (Every 28th to 34th day)

- Yes, most of the time No, mostly not

C3: If yes, for how many days do you normally bleed?

- 1-2 days 3-4 days 5-6 days 7-8 days 9 days or more

C4: If yes, have you ever had problems with heavy menstrual bleeding?

- Yes No

C5: If yes, how many periods have you had during the last year?

- 12 or more 9-11 6-8 3-5 0-2
-

3.2 Menstrual function

Mark the response that most accurately describes your situation

C6: If no or “I don’t remember”, when did you have your last period?

- 1-2 months ago 3-4 months ago 5-6 months ago
- more than 6 months ago 12 months ago or more
- I’m pregnant and therefore do not

D: Have your periods ever stopped for 3 consecutive months or longer (besides pregnancy)?

- No, never Yes, it has happened before Yes, that’s the situation now

E: Do you experience that your menstruation changes when you increase your exercise intensity, frequency or duration?

- Yes No

E1: If yes, how? (Check one or more options)

- I bleed less I bleed fewer days My menstruations stops
- I bleed more I bleed more days