

(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? YesNo
* If not, what occupation do you have beside your sport?

Full time job

Part time job

Student

Other

* What is your maximal oxygen consumption (Vo2max)?

\_\_\_\_\_\_\_\_\_\_\_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)?

YesNo

If yes, which one (s)?

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

YesNo

If yes, which one (s)?

1. **Injuries Mark the response that most accurately describes your situation**

**A2.1:** If yes, have you had a bone stress injury? YesNo

 what kind of injuries have you had in the last year?

22 days or more

15-21 days

8-14 days

1-7 days

**A1:** If yes, for how many days absence from training or participation in competition due to injuries have

you had in the last year?

Yes, five times or more

Yes, three or four times

Yes, once or twice

No, not at all

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

to injuries?

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? YesNo

If yes, specify how many and location?

**A2.3:** If yes, have you had an acute injury? YesNo

If yes, specify how many and location?

1. **Gastro intestinal function**

Comments regarding gastrointestinal function:

Hard and dry

Diarrhoea-like (watery)

Normal (soft)

**D**: How would you describe your normal stool?

Once a week or more rarely

Twice a week

Every second day

Once a day

Several times a day

**C**: How often d0 you have bowel movements on average?

Rarely or never

Yes, once or twice a week or more seldom

Yes, several times a week

Yes, several times a day

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

Rarely or never

Yes, once or twice a week or more seldom

Yes, several times a week

Yes, several times a day

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

1. **Menstrual function and use of contraceptives**
	1. **Contraceptives Mark the response that most accurately describes your situation**

Other

Hormonal implant

Hormonal coil

Hormonal ring

**B1:** If yes, what kind?

Hormonal patches

No

Yes

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

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

No

Yes

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

To regulate the menstrual cycle in relation to performances etc..

Otherwise menstruation stops

Other

Reduction of bleeding

Reduction of menstruation pains

Contraception

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

No

Yes

A: Do you use oral contraceptives?

* 1. **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**

I bleed more days

I bleed more

My menstruations stops

I bleed fewer days

I bleed less

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

No

Yes

**E:** Do you experience that your menstruation changes when you increase your exercise intensity,

frequency or duration?

Yes, that’s the situation now

Yes, it has happened before

No, never

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

I’m pregnant and therefore do not menstruate

5-6 months ago

3-4 months ago

1-2 months ago

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

more than 6 months ago 12 months ago or more