



DOSSIER · SUBSTANCE

Barley Grass

Barley grass is young barley leaves; in small studies in diabetes, LDL oxidation was lower, cholesterol did not decrease compared with placebo.

297

STUDIES IN
TOTAL

13

IN HUMANS

1

OF WHICH
CONTROLLED

60

IN ANIMALS

19

IN THE LAB

Figures from the IHR study database · Last updated 2026-10-15

How to Read This Dossier

ESTABLISHED

measured in humans, with a comparison group

PLAUSIBLE

supported by mechanism, animal studies or observation

HYPOTHESIS

a likely connection that still needs to be tested

Barley Grass at a Glance

A systematic review attributes antioxidant and anti-inflammatory effects to barley grass powder from young leaves ¹.

In a randomized study in type 2 diabetes, extract from young barley leaves prolonged the time to LDL oxidation compared with placebo and lowered radical markers in the blood ³. A controlled study without a placebo group saw this also with barley leaf extract alone, most strongly together with vitamin C and E ⁴.

A systematic review attributes favorable effects on blood sugar, blood pressure and blood lipids to barley grass powder ¹. In a randomized study in healthy people, total and LDL cholesterol did not decrease more with barley leaf extract than with placebo ².

The systematic review also attributes better gastrointestinal function and protection against constipation to barley grass powder ¹.

Two review articles consider barley grass powder to promote sleep because of its content of GABA, calcium and potassium ¹¹⁰.

We evaluated 10 human studies on Barley grass, including 2 randomised controlled trials and one meta-analysis or systematic review; the controlled studies include 51 participants in total. As of 3 October 2026.

1. What Is Barley Grass? Occurrence, Origin and Forms

Barley grass is the young leaves of barley (*Hordeum vulgare*), harvested before the ears form. The leaves contain chlorophyll, fibre, minerals and plant compounds such as flavonoids, among other things.

Barley is grown worldwide. For barley grass, the young shoots are cut a few weeks after sowing, then dried and ground or juiced.

Products include powder from dried leaves, powder from dried juice, tablets and capsules.

Forms and Preparations Studied

- Powder from the young leaves
- Dried barley grass juice
- Tablets and capsules
- Combination products with barley grass – the other ingredients are named in each case

Not covered on this page:

- Barley grain, barley bran and barley beta-glucans → Beta-Glucans
- Cultivation, variety and plant research on barley

2. What Does Barley Grass Do? Results by Area

AREA	RESULT IN CONTROLLED STUDIES	STRENGTH OF EVIDENCE	STUDIES	PARTICIPANTS
Oxidative stress and inflammation	mostly improved	high	1 meta-analyses · 2 controlled · 3 other	0
Blood sugar and blood lipids	mostly no difference	moderate	1 meta-analyses · 2 controlled · 2 other	51
Digestion and gut	reviews only	low	1 meta-analyses · 0 controlled · 0 other	0
Sleep and mood	reviews only	low	1 meta-analyses · 0 controlled · 1 other	0
Other outcomes	reviews only	low	1 meta-analyses · 0 controlled · 3 other	0

How to read the table: counted are human studies whose results concern the area. “High” means at least one meta-analysis and two controlled studies showing improvement, or at least three controlled studies of which three quarters show improvement, with at least 300 participants in total. “Moderate” means at least two controlled studies showing improvement, as a majority, or one meta-analysis alongside controlled studies. “Low” means one controlled study showing improvement. Where an area has no controlled study, the strength of evidence is at most “low” (result “reviews only” or “observational data only”). Everything else is “unclear”. A study counts as showing improvement when at least half of its outcomes in this area improved. Reviews of combination products do not count as meta-analyses; results that only describe side effects or shares of users do not count as an effect. The same study is counted only once.

3. What the Studies Show in Detail

Barley Grass, Oxidative Stress and Inflammation: Human Studies

A systematic review attributes antioxidant and anti-inflammatory effects to barley grass powder from the young leaves ¹. In a randomized study in type 2 diabetes, extract from young barley leaves prolonged the time to LDL oxidation compared with placebo and lowered radical markers in the blood ³. Combined with an olive oil-rich diet, the protection of the small, dense LDL particles was stronger ³. A controlled study without a placebo group saw this also with barley leaf extract alone, most strongly together with vitamin C and E ⁴. A study without a placebo group found in smokers and non-smokers with elevated blood lipids a longer time to LDL oxidation after barley leaf extract ⁷.

STUDY	DESIGN · PARTICIPANTS	PREPARATION · DOSE · DURATION · COMPARISON
¹ Zeng et al. 2018	systematic review	Barley grass powder and its ingredients
³ Yu et al. 2003	randomised controlled	barley leaf essence; 15 g barley leaf essence; 4 weeks; vs. placebo; barley leaf essence alone vs. barley leaf essence plus olive oil diet
⁴ Yu et al. 2002	controlled	Young barley leaf extract (BL), alone or with vitamins C and E; 15 g BL, 200 mg vitamin C, 200 mg vitamin E daily; 4 weeks; vs. BL alone vs
⁷ Yu et al. 2004	study	Young barley leaf extract (BL) or adlay; 15 g BL or 60 g adlay daily; four weeks; vs. BL versus adlay
⁸ Rzeski et al. 2026	review	Young barley preparations: dried grass powder and juice-derived products; brief
⁹ Zeng et al. 2020	review	Barley grass and barley grass extracts; vs. Barley grass versus barley grain

Barley Grass, Blood Sugar and Blood Lipids: Human Studies

A systematic review reports for barley grass powder a favorable effect on blood sugar regulation, blood pressure and blood lipids in people with chronic diseases ¹. A randomized study in healthy people found no greater reduction in total and LDL cholesterol with capsules of barley leaf extract than with placebo ². In type 2 diabetes, barley leaf essence alone did not change the fatty acid composition of LDL particles, only the additional olive oil-rich diet did ³. A study without a placebo group found in people with elevated blood lipids after four weeks of barley leaf extract lower total and LDL cholesterol levels than at the start ⁷. The evidence is moderate, because the controlled studies are small and short. It remains open whether barley grass affects blood sugar and blood lipids more than placebo; a larger and longer study could clarify this.

STUDY	DESIGN · PARTICIPANTS	PREPARATION · DOSE · DURATION · COMPARISON
¹ Zeng et al. 2018	systematic review	Barley grass powder and its ingredients
² Byun et al. 2015	randomised controlled · 51 participants	barley sprout/leaf extract, one capsule daily; one capsule daily; 12 weeks; vs. placebo capsules
³ Yu et al. 2003	randomised controlled	barley leaf essence; 15 g barley leaf essence; 4 weeks; vs. placebo; barley leaf essence alone vs. barley leaf essence plus
⁷ Yu et al. 2004	study	Young barley leaf extract (BL) or adlay; 15 g BL or 60 g adlay daily; four weeks; vs. BL versus adlay
⁸ Rzeski et al. 2026	review	Young barley preparations: dried grass powder and juice-derived products; brief

Barley Grass, Digestion and Gut: Human Studies

A systematic review attributes better gastrointestinal function and protection against constipation to barley grass powder from the young leaves ¹. This assessment is based on a single review. It remains open how the effects appear in controlled studies and in people without chronic diseases.

STUDY	DESIGN · PARTICIPANTS	PREPARATION · DOSE · DURATION · COMPARISON	RESULT
¹ Zeng et al. 2018	systematic review	Barley grass powder and its ingredients	improves gastrointestinal function: improved; constipation: improved

Barley Grass, Sleep and Mood: Human Studies

A systematic review attributes a sleep-promoting effect to barley grass powder from the young leaves ¹. Another review considers barley grass powder, because of GABA, calcium and potassium, to be a particularly suitable sleep-promoting food; the mechanisms still need to be clarified ¹⁰. Controlled studies on sleep duration and sleep quality are still lacking.

STUDY	DESIGN · PARTICIPANTS	PREPARATION · DOSE · DURATION · COMPARISON	RESULT
¹ Zeng et al. 2018	systematic review	Barley grass powder and its ingredients	sleep promotion: improved
¹⁰ Zeng et al. 2014	review	Barley grass powder as a functional food	Sleep promotion by functional foods: improved

Barley Grass: Further Outcomes in Studies

A systematic review also attributes to barley grass powder from the young leaves strengthened immunity, liver protection, antidepressant and cancer-inhibiting effects as well as better cognition ¹. In an observational study on fibromyalgia, symptoms and quality of life improved under a predominantly raw vegetarian diet that included a dried barley grass juice product ⁵. A case report on a combination preparation of barley grass, royal jelly and Taraxaf® plus cupping describes an improvement in TSH value and urticaria in a woman with hyperthyroidism ⁶. Controlled studies on these effects are still lacking.

STUDY	DESIGN · PARTICIPANTS	PREPARATION · DOSE · DURATION · COMPARISON
¹ Zeng et al. 2018	systematic review	Barley grass powder and its ingredients
⁵ Donaldson et al. 2001	study · 30 participants	mostly raw vegetarian diet with dehydrated barley grass juice product; 7 months; vs. no control group, change from baseline
⁶ Alhilo et al. 2021	case report · 1 participants	dietary-herbal supplement with green barley grass, royal jelly, Taraxaf® plus wet cupping; two months; vs. no control; prior 16 week
⁹ Zeng et al. 2020	review	Barley grass and barley grass extracts; vs. Barley grass versus barley grain

4. How Is Barley Grass Dosed? Preparation, Dose and Duration in Studies

Extracts from young barley leaves were studied, in one study as a capsule ², as well as a dried barley grass juice product as part of a diet ⁵. The extract was partly combined with an olive oil-rich diet ³ or with vitamin C and vitamin E ⁴. A combination product of barley grass, royal jelly and Taraxaf® plus cupping was described in a case report.

PREPARATION OR FORM	DOSE	DURATION	STUDY
barley sprout/leaf extract, one capsule daily	one capsule daily	12 weeks	²
barley leaf essence	15 g barley leaf essence	4 weeks	³
Young barley leaf extract (BL), alone or with vitamins C and E	15 g BL, 200 mg vitamin C, 200 mg vitamin E daily	4 weeks	⁴

5. Is Barley Grass Safe? Side Effects in Studies

In a randomized study with capsules of barley leaf extract, clinical and laboratory findings over twelve weeks did not differ from placebo ². A case report on a combination product with barley grass describes the treatment as free of side effects ⁶. A review article sees fertilization and soil composition as an underestimated source of fluctuating ingredients and possible safety concerns ⁸.

STUDY	REPORTED SIDE EFFECTS
² Byun et al. 2015	no differences in clinical or laboratory findings between groups
⁶ Alhilo et al. 2021	urticaria on Carbimazole, resolved after switch; no side effects reported

STUDY	REPORTED SIDE EFFECTS
⁸ Rzeski et al. 2026	safety concerns from agronomic variability mentioned

6. What Remains Open: Limits of the Evidence

- The controlled studies are small and short, which limits their evidential value.
- Controlled studies on digestion, sleep and mood are still lacking.
- A review names inconsistent preparations and high doses in animal studies as an obstacle to translation to humans ⁸.
- It remains open whether and in what form barley grass reliably affects blood sugar and blood lipids.

7. Bottom Line: What Is Established About Barley Grass

Barley grass, the young leaves of barley, has been studied as an extract, as dried juice, in capsules and in combination products. A systematic review attributes antioxidant, anti-inflammatory and digestion-promoting effects as well as sleep promotion to barley grass powder ¹. In a randomized study in type 2 diabetes, extract from young barley leaves prolonged the time to LDL oxidation compared with placebo and lowered radical markers in the blood ³. A controlled study without a placebo group saw this also with barley leaf extract alone, most strongly together with vitamin C and E ⁴.

In a randomized study in healthy people, cholesterol did not decrease more with barley leaf extract than with placebo ². The evidence is limited overall, because the controlled studies are small and short and are still lacking for several areas.

Frequently Asked Questions

How well has Barley grass been studied in humans?

We evaluated 10 human studies on Barley grass, including 2 randomised controlled trials and one meta-analysis or systematic review; the controlled studies include 51 participants in total. As of 3 October 2026.

Does Barley grass help with oxidative stress and inflammation? What the studies show

We evaluated one meta-analysis or systematic review, 2 controlled studies and 3 further studies. Result of the controlled studies: mostly improved. Strength of evidence under our published rules: high. Sources: ¹³⁴⁷

Does Barley grass help with blood sugar and blood lipids? What the studies show

We evaluated one meta-analysis or systematic review, 2 controlled studies and 2 further studies; the controlled studies include 51 participants in total. Result of the controlled studies: mostly no difference. Strength of evidence under our published rules: moderate. Sources: ¹²³⁷

Does Barley grass help with digestion and gut? What the studies show

We evaluated one meta-analysis or systematic review. There are no controlled studies yet, only reviews; the strength of evidence is therefore low at most. Sources: ¹

Does Barley grass help with sleep and mood? What the studies show

We evaluated one meta-analysis or systematic review and one further study. There are no controlled studies yet, only reviews; the strength of evidence is therefore low at most. Sources: ¹¹⁰

What is barley grass?

Barley grass is the young leaves of barley (*Hordeum vulgare*), which are harvested before ear formation. They contain chlorophyll, fiber, minerals and plant compounds such as flavonoids. Barley grain, barley bran and beta-glucans from barley are not included.

What effects do studies in humans show?

A systematic review attributes antioxidant and anti-inflammatory effects to barley grass powder from young leaves ¹. In a randomized study in type 2 diabetes, extract from young barley leaves prolonged the time to LDL oxidation compared with placebo and lowered radical markers in the blood ³. A controlled study without a placebo group saw this also with barley leaf extract alone, most strongly together with vitamin C and E ⁴. The same review also attributes favorable effects on gastrointestinal function, constipation and sleep to barley grass powder ¹.

Are there also results without an effect?

Yes. A randomized study in healthy people found no greater reduction in total and LDL cholesterol with capsules of barley leaf extract than with placebo ². In type 2 diabetes, barley leaf essence alone did not change the fatty acid composition of LDL particles ³.

How safe is barley grass?

In a randomized study with capsules of barley leaf extract, clinical and laboratory findings over twelve weeks did not differ from placebo ². A case report on a combination product with barley grass describes the treatment as free of side effects ⁶. A review article sees fertilization and soil composition as an underestimated source of fluctuating ingredients and possible safety concerns ⁸.

What forms were studied?

Extracts from young barley leaves were studied, in one study as a capsule ², as well as a dried barley grass juice product as part of a diet ⁵. The extract was partly combined with an olive oil-rich diet ³ or with vitamin C and vitamin E ⁴. A combination product of barley grass, royal jelly and Taraxaf® plus cupping was described in a case report.

Sources

1

Preventive and Therapeutic Role of Functional Ingredients of Barley Grass for Chronic Diseases in Human Beings
Zeng Y, Pu X, Yang J, Du J, Yang X, Li X et al. · 2018

2

Effects of a Dietary Supplement with Barley Sprout Extract on Blood Cholesterol Metabolism
Byun AR, Chun H, Lee J, Lee SW, Lee HS, Shim KW · 2015

3

LDL cholesterol and oxidation are significantly reduced in Type 2 diabetic patients receiving a barley leaf essence supplemented olive oil diet
Yu YM, Tsai CE · 2003

4

Effects of young barley leaf extract and antioxidative vitamins on LDL oxidation and free radical scavenging activities in type 2 diabetes
Yu YM, Chang WC, Chang CT, Hsieh CL, Tsai CE · 2002

5

Fibromyalgia syndrome improved using a mostly raw vegetarian diet: an observational study
Donaldson MS, Speight N, Loomis S · 2001

6

Hyperthyroidism treatment by alternative therapies based on cupping and dietary-herbal supplementation: a case report
Alhilo I, Alhilo S, Alkhatib B, Al-Shorman A · 2021

7

Effect of young barley leaf extract and adlay on plasma lipids and LDL oxidation in hyperlipidemic smokers
Yu YM, Chang WC, Liu CS, Tsai CM · 2004

8

Young Barley (“Hordeum vulgare“ L.) Preparations: From Phytochemical Complexity to Clinical Relevance
Rzeski W, Rzeska W · 2026

9

Molecular Mechanism of Functional Ingredients in Barley to Combat Human Chronic Diseases
Zeng Y, Pu X, Du J, Yang X, Li X, Mandal MSN et al. · 2020

10

Strategies of Functional Foods Promote Sleep in Human Being
Zeng Y, Yang J, Du J, Pu X, Yang X, Yang S et al. · 2014

International Health Research

Research, put in context. Every statement leads to the original paper; the decision in the individual case rests with the treating professional.
ih-research.com/en/knowledge/barley-grass/ · Last updated 2026-10-15