



# The Wellness Shift: Navigating GLP-1s for Women's Health

Renee Korczak Ph.D., RDN, CSSD, LD

# Today's Agenda

- Describe the intersection of nutrition, women's health, and GLP-1s and why it is central in today's nutrition landscape
- Discuss new expert guidelines on nutrition and lifestyle care for those taking GLP-1s and how naturally-derived, functional ingredients can help support women's health
- Review clinical studies on naturally-derived functional ingredients and how they support **key areas** of women's health
- Summarize key messages around nutrition, women's health and GLP-1s that can be used for media

# Get to Know your Speaker

Ph.D. with a focus on dietary fiber and gut health

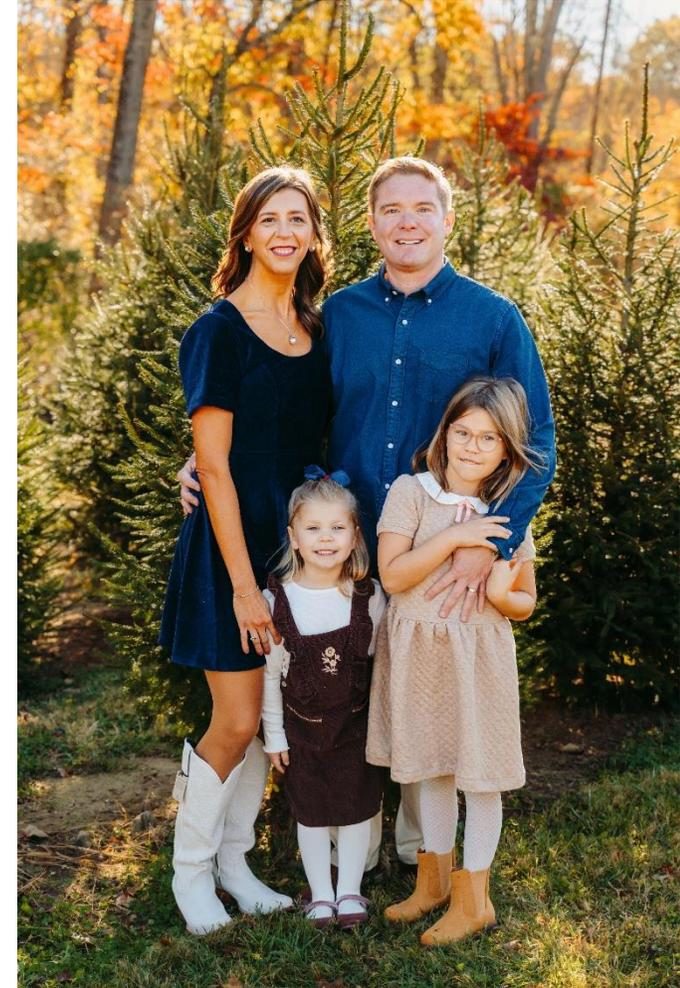
RDN 15+ yrs.

Mom to Ava (6 yrs.), Hannah (4 yrs.), wife to Chris

Hobbies: world travel, cooking, yoga, gymnastics

Languages spoken: Polish, English

**Disclosures:** Consultant Dietitian Dr. Renee Korczak LLC, Part-time Faculty, University of Minnesota



# Women's Health is Trending and It's About Time

Beyond the trillion-dollar headline: The new era of women's health

After Decades of Misunderstanding, Menopause is Finally Having Its Moment

By Kirra Berman

April 14, 2025

Diabetes & Endocrinology, Women's Health

Women in Menopause Benefit From GLP-1 Weight-Loss Medications



# Why Women's Health Deserves Our Attention



## GLP-1 Use patterns

- 77.6% of GLP-1 RA prescriptions for obesity are for women

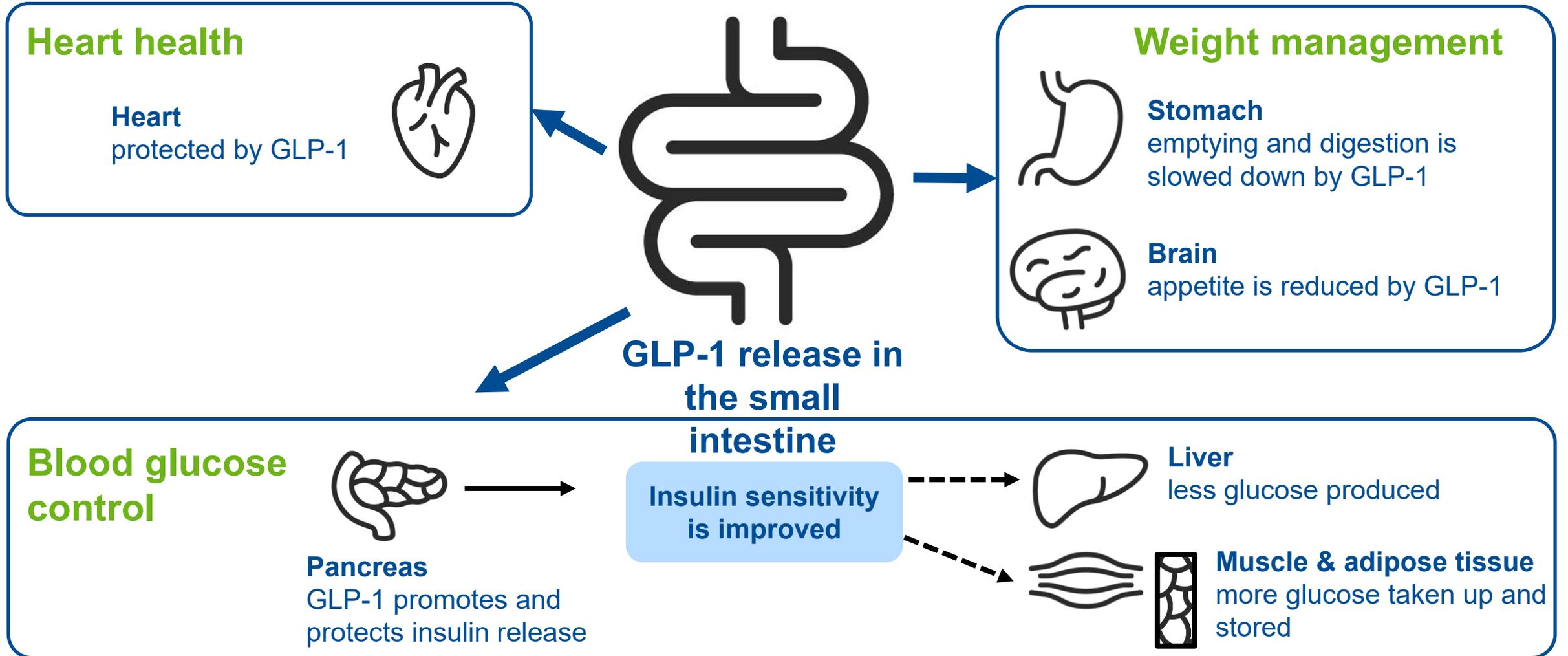
## Demographics

- Women are typically understudied in clinical research-that needs to change
- Lower baseline muscle mass than men
- Women live longer= more years of age-related health decline

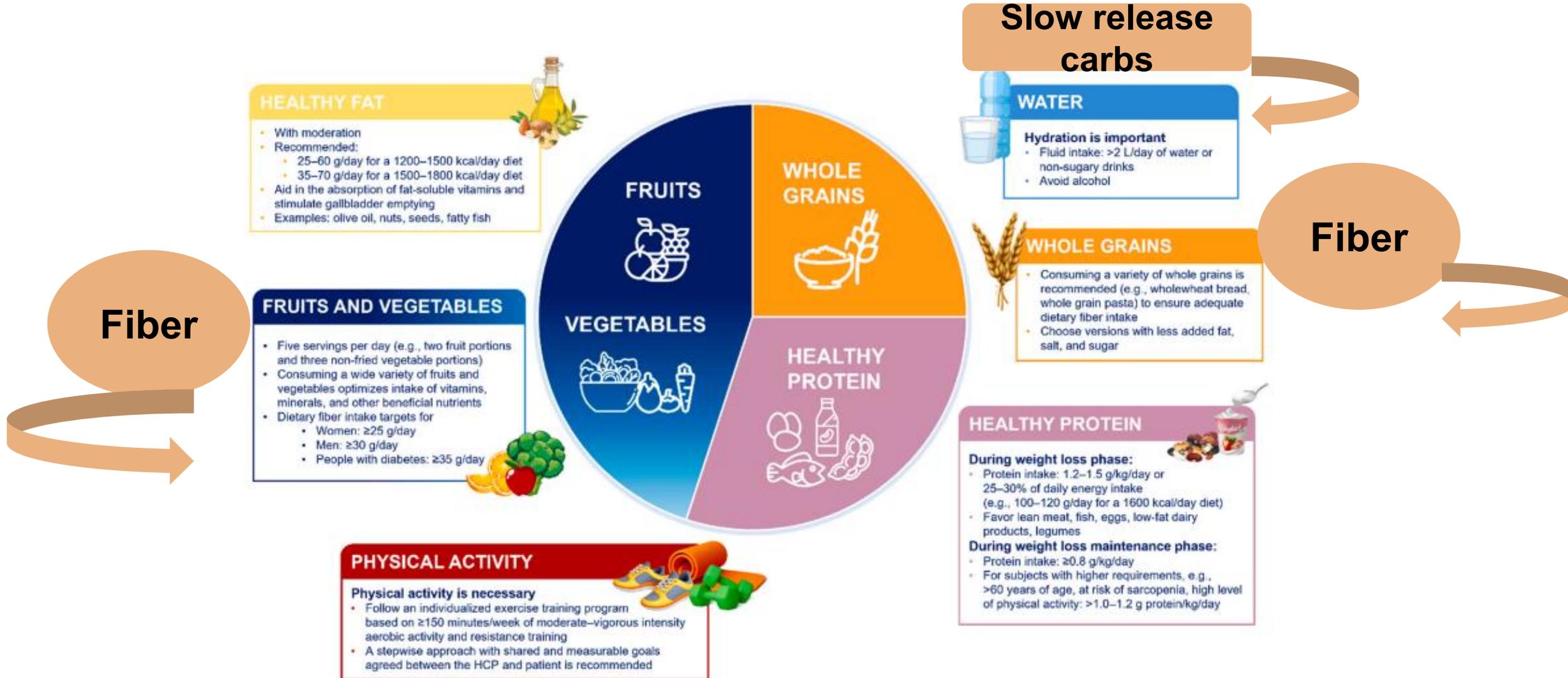
## Menopause

- Hormonal changes impact *muscle protein synthesis, body composition, metabolic health, sleep, mood, bone health, gut health...*

# Revisiting GLP-1



# Functional Ingredients offer Women a Solution to help meet Dietary Requirements while following GLP-1 Based Therapy



# GLP-1 Drug Use or Not; Nutrition Support is Needed at Every Phase



## During GLP-1 Medication Use

### Challenges

- Digestive issues and dehydration
- Reduced appetite, nutrient deficiencies
- Low energy and muscle loss

### Needs

- Support digestive health
- Nutrient-dense foods
- Preserve muscle mass
- Enhance hydration



## After GLP-1 (Maintenance Phase)

### Challenges

- Appetite returns, risk of weight regain
- Struggle to keep a lean body mass
- Stay metabolically healthy

### Needs

- Support satiety and GLP-1 release for long term weight loss
- Nutrient-dense foods
- Support bone health and muscle mass



## Natural Weight Loss (without GLP-1s)

### Challenges

- Manage hunger and cravings naturally
- Avoid blood sugar spikes and crashes
- Seeking long-term health and mood balance

### Needs

- Improve satiety and digestive health
- Sustained energy, blood sugar balance & fat burning
- Support heart and bone health

# Nutrition Roadmap for Women's Wellness

## Functional Ingredients and Benefit Areas that We will Cover Today

### Inulin and Oligofructose from Chicory Root



### Palatinose™ (isomaltulose)



# **Inulin and Oligofructose from Chicory Root**

# From Root to Gut

## Chicory root fiber is natural

### Made by nature

Chicory root fibers are...



naturally grown



then harvested



and gently extracted  
with water.

Structures **made by nature** and  
**found in nature.**

VS.

### Man made by chemistry

Synthesized fibers like **tapioca fiber, soluble corn fiber, resistant starch** and **other resistant dextrins**...



Polymerization



made by rearranging or polymerizing  
of glucose or starch syrup



using high temperatures



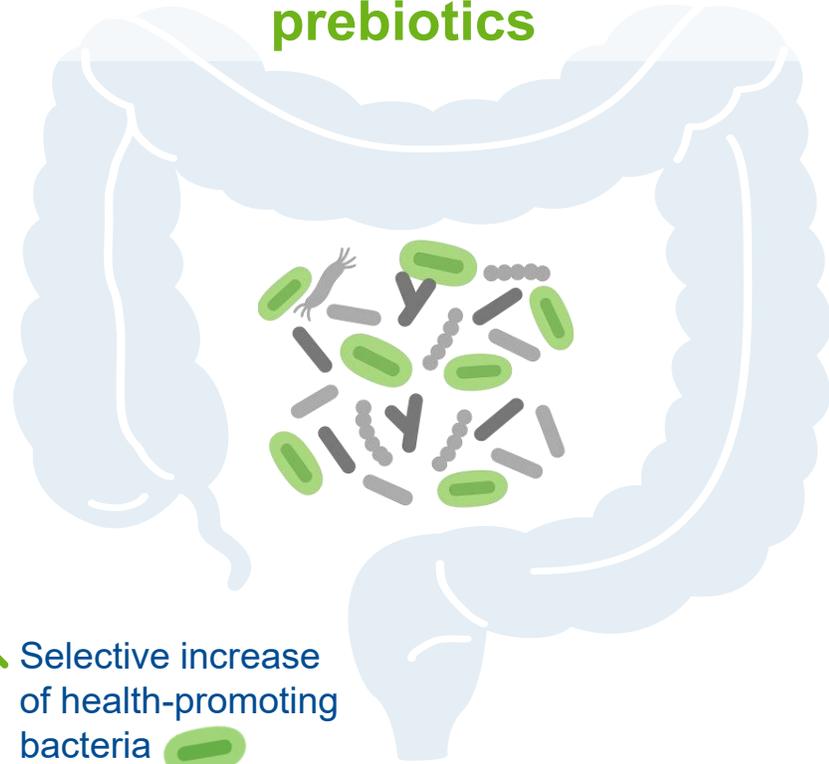
and chemicals.

Structures **made by chemistry** and  
**not found naturally.**

# Why Selectivity Matters

## Feeding the Good, Not the Many

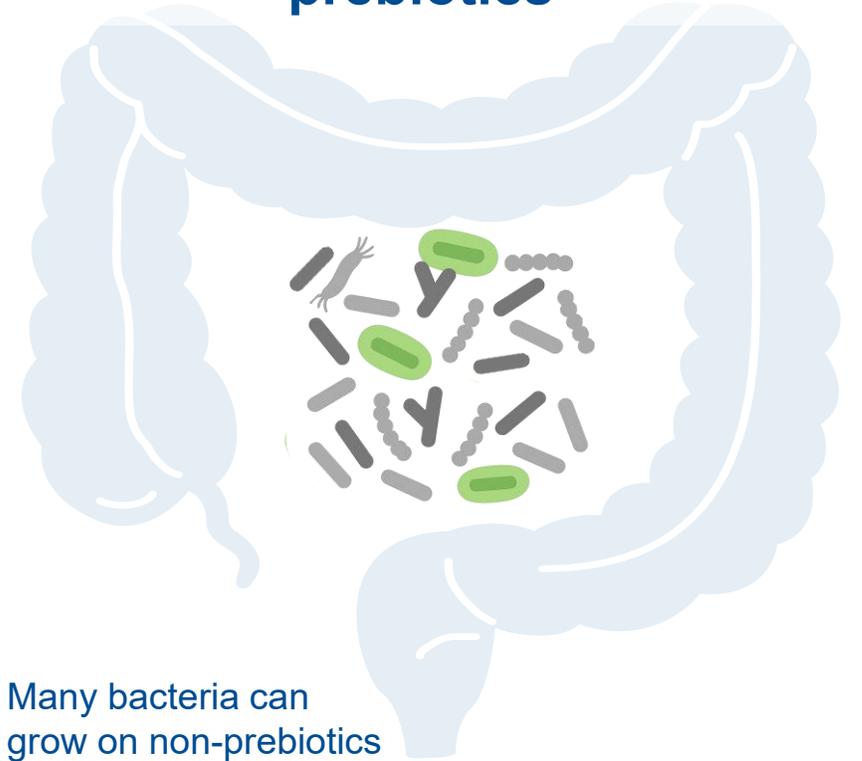
### Selective fermentation with prebiotics



↑ Selective increase of health-promoting bacteria

→ Targeted health benefits

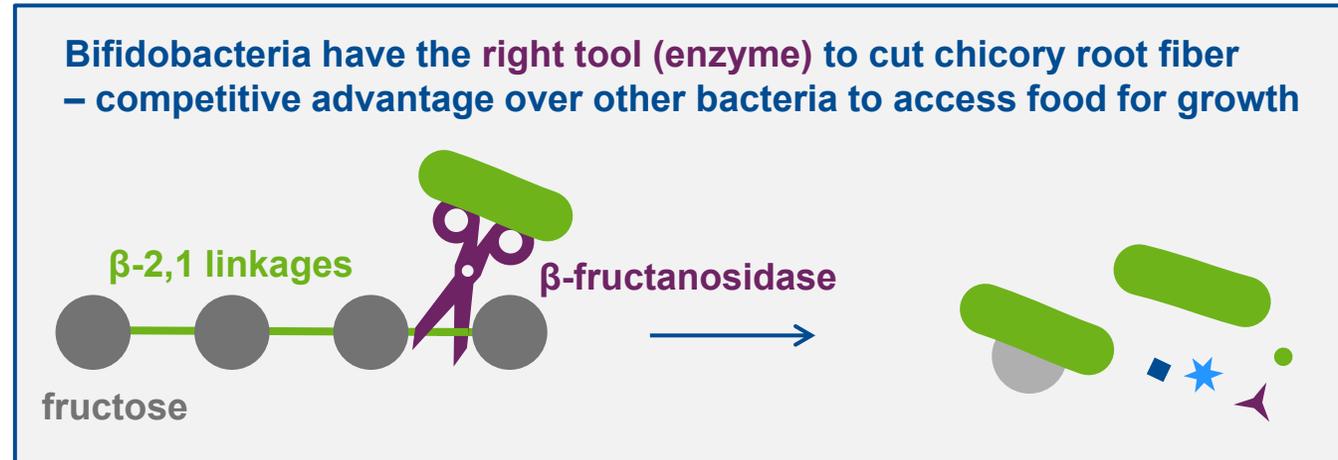
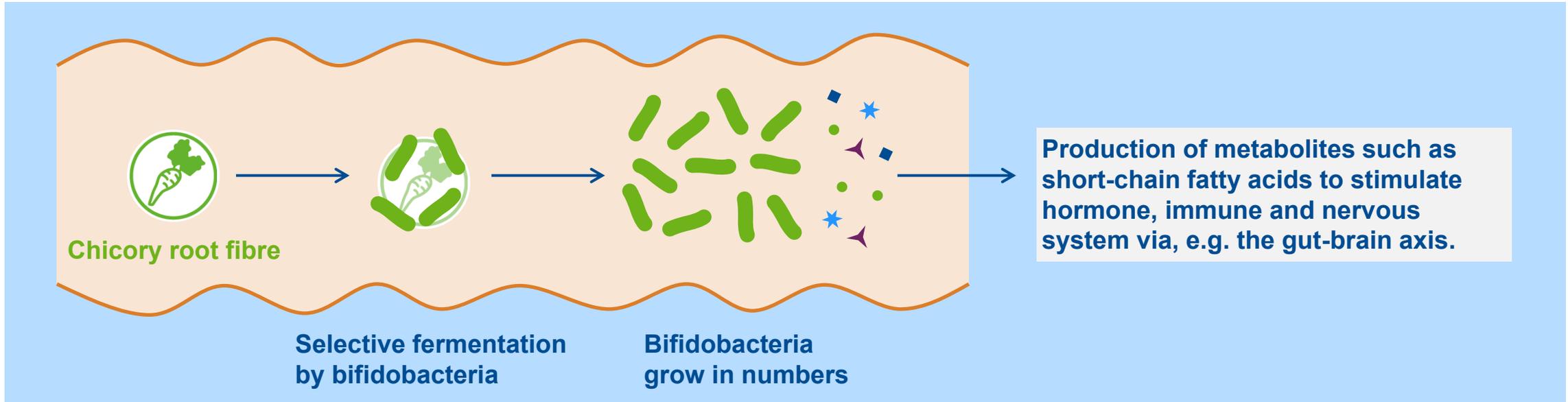
### Non-selective fermentation with non-prebiotics



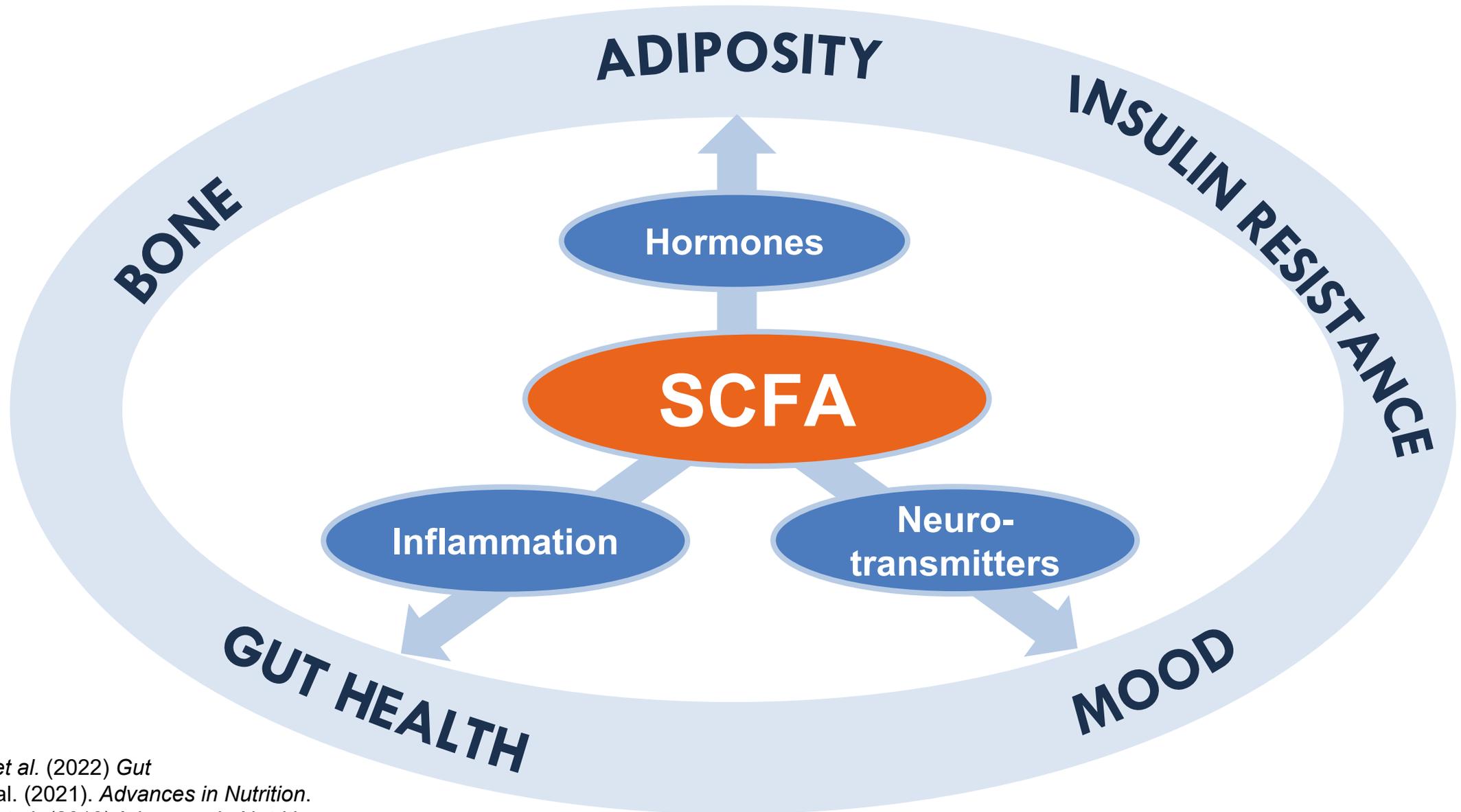
Many bacteria can grow on non-prebiotics

→ Unspecific fermentation effects

# Chicory root fiber supports selectively the growth of bifidobacteria



# Microbiota derived signaling for health outcomes



# Revisiting Prebiotics:

## Inulin and FOS are the most researched prebiotics

### What are they?

- Substrates that are ***selectively utilized*** by host microorganisms conferring a **health benefit**

### Where are they found?

- In whole plant foods (ex: onions, garlic, Jerusalem artichokes, various fruits, grains, legumes, seeds)
- In packaged functional foods and beverages

### What to look for on the label?

Look for specific prebiotic ingredients:

- **Inulin**
- **Chicory root fiber**
- **Fructooligosaccharides (FOS)**
- **Galactooligosaccharides (GOS)**

+30  
years of  
research

# Chicory root fibers

## The Most Studied Prebiotics

1995



Over 30 years of  
scientific research

2025



*Birth of the **Prebiotic Concept**:*  
Research began in Europe – with **BENEEO**  
**involved** from the very beginning.

*ISAPP Expert Recommendation:*  
“Dietary FOS, GOS and inulin-type fructans are  
the **most extensively investigated prebiotics.**”

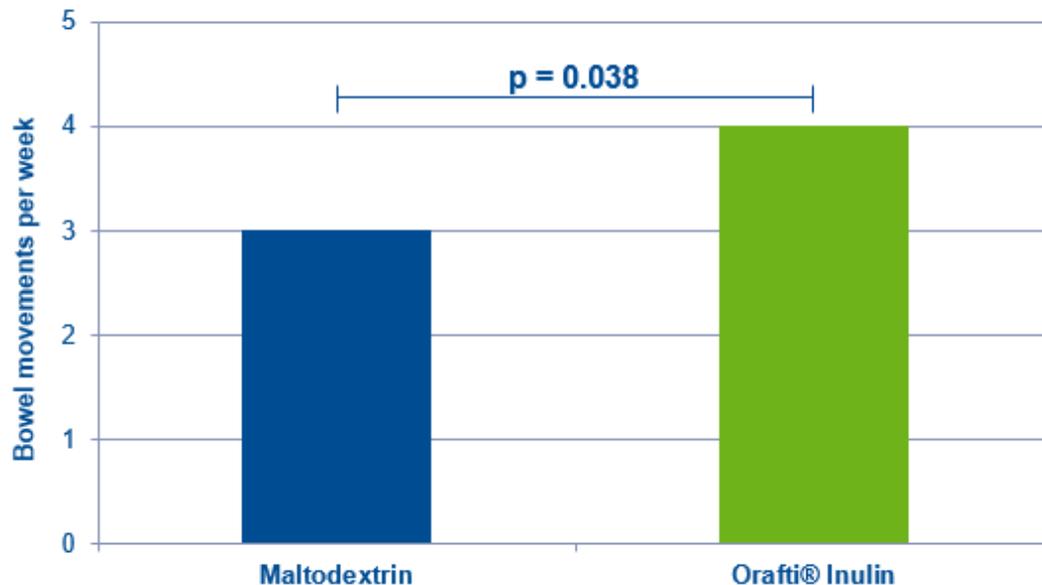
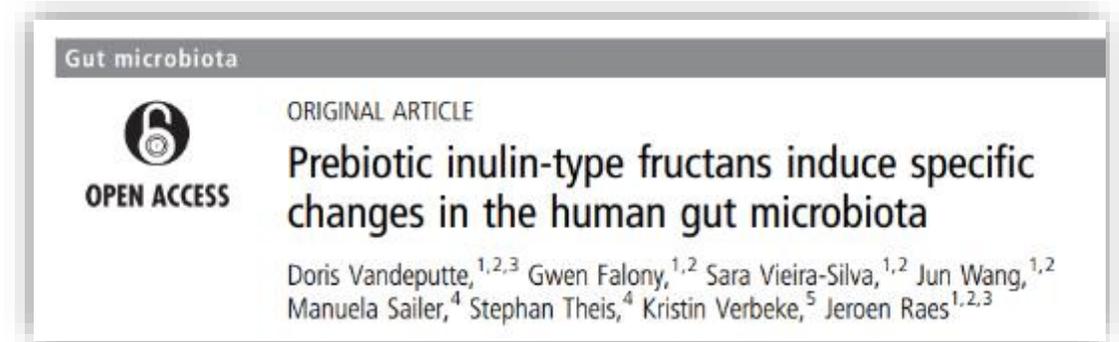
**More than 200 clinical trials with chicory root fibers  
confirm health benefits.**

# Inulin and Oligofructose from Chicory Root

**Digestive Health**

# Inulin from chicory root

## Improves digestive health and well-being



- **Study design:** Gold Standard methodology
- Results show significantly **more bowel movements per week with inulin**
- Further analyses found **higher ‘good’ bacteria** (Bifidobacteria; *Anaerostipes*). There was also **lower ‘bad’ bacteria** (*Bilophila*), which was **linked to better digestive health and digestive well-being** (higher quality of life ratings)

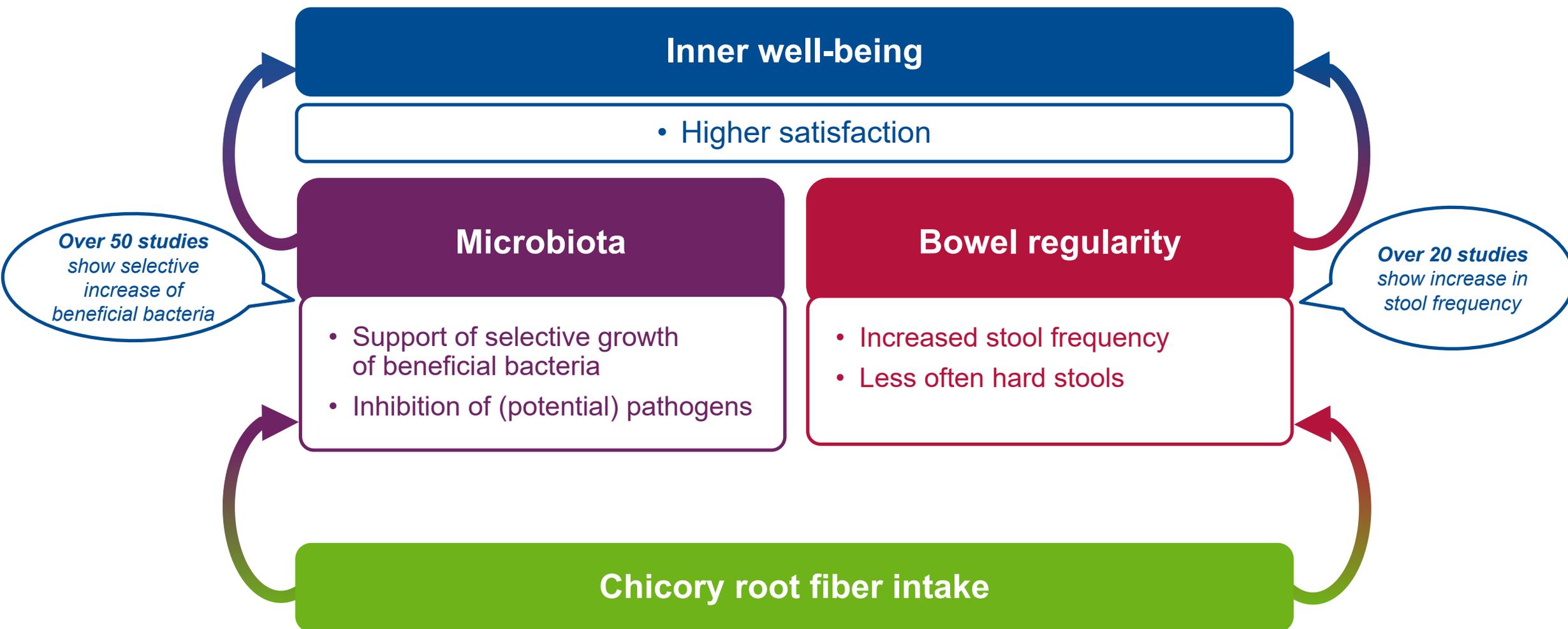
Micka et al. (2017) Int J Food Sci Nutr. 68(1):82-89. <https://www.ncbi.nlm.nih.gov/pubmed/27492975>

Study design: This is a randomised, placebo-controlled, double-blind, cross-over study of 44 healthy adults with mild constipation who consumed 12g/day (3x4g/day) Orafti® chicory inulin as compared to the maltodextrin placebo for 4 weeks. Results showed that 12g/day Orafti® chicory inulin improved bowel function versus maltodextrin.

Vandeputte et al (2017) Gut; 66(11):1968-74. Available from <http://gut.bmj.com/content/66/11/1968>

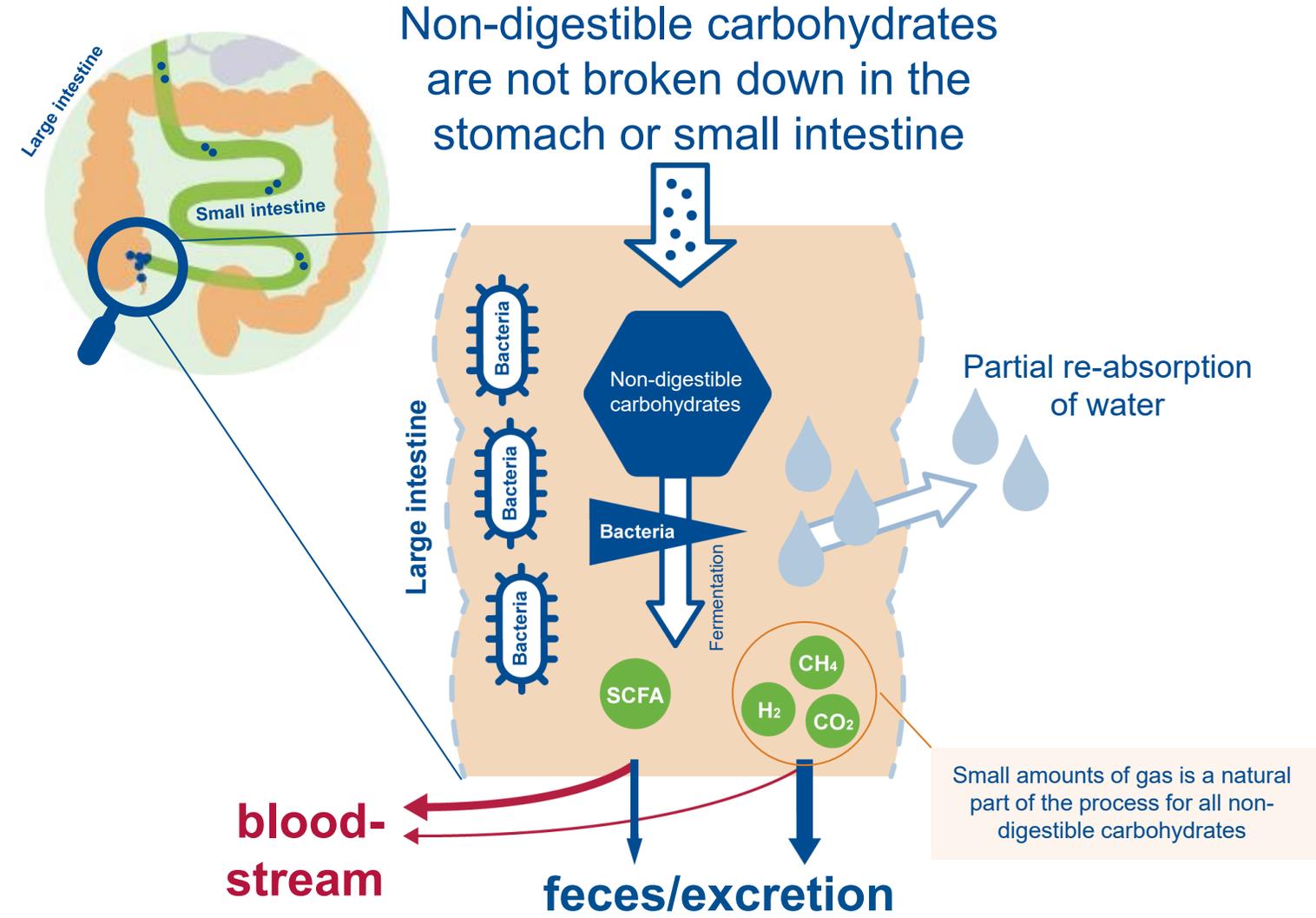
# Improved quality of life with chicory root fibers

## The prebiotic effect has positive effects on inner well-being



# What we don't digest, our gut bacteria happily do!

## The journey of non-digestible carbs



SCFA = Short chain fatty acids  
H<sub>2</sub> = Hydrogen  
CH<sub>4</sub> = Methane  
CO<sub>2</sub> = Carbon dioxide

### Chicory root fibers unique properties as prebiotics

**Bacteria** Selective increase in beneficial bacteria like bifidobacteria

↓

**SCFA** Increased production of short-chain fatty acids

↓

This process is linked to a variety of health benefits

# Inulin and Oligofructose from Chicory Root

**Tolerance**

# Digest the Facts

## The truth behind your digestive system

To feel something is a **natural process** and actually a sign for a **working & healthy digestion!**

A variety of fruits & vegetables are known to produce gas



Why ?

They contain non-digestible carbohydrates



Don't forget about the **fiber gap**

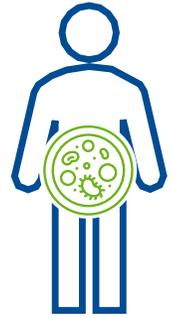
- Most people do not reach the recommended daily fiber intake
- They are used to a so-called “**lazy gut**” and need to learn again that feeling the digestion is normal

# Digestive Diversity

## The many factors influencing tolerance



**Everyone's built differently!**



Individual gut microbiota

- Biomass
- Composition



Psychological factors

- sensitivity
- alertness
- increased consciousness
- prejudice



Usual diet and influence of other nutrients



**Factors influencing digestive tolerance**



Fiber intake

- Amount
- Single dose/ spread over the day
- Solid/liquid



Body constitution and general health conditions



# Chicory root fibers offer several health benefits

## Within the well-tolerated range!

Unlock the full set of health benefits  
with only **12 g per day**  
(that's ~3 – 4 g per serving)

Prebiotic  
Effect



3  
g/d

Improved  
Mood



8  
g/d

Weight Management  
Support



10  
g/d

12  
g/d



↑ Calcium  
Absorption



Improved  
Digestive  
Health

Tolerance for chicory root fibers is based

on:  
 > 80 ... including ... in > 1600  
 Human intervention studies High-quality RCTs with detailed tolerance outcomes Subjects



RCT = Randomised controlled trial



Chicory root fiber's winning formula



Proven  
Prebiotic



Several established  
health benefits with  
only **3 – 12 g/d**



Well-tolerated

15  
g/d



20  
g/d

Up to 15 – 20 g/d are still  
within good tolerance  
(~5 – 6 g per serving)

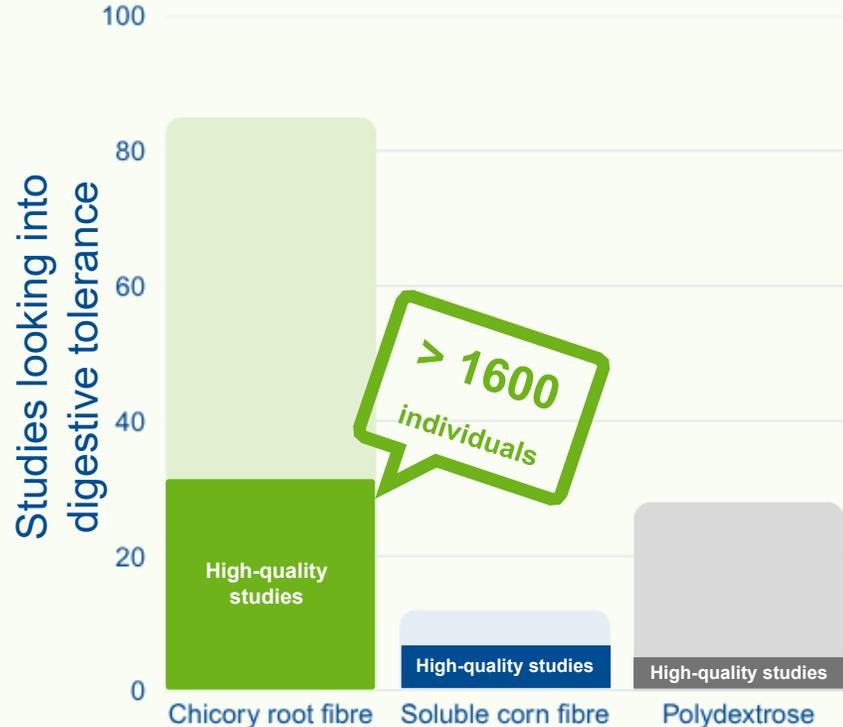
**There is no fixed limit of fiber intake for everyone!**

*Tolerance is more like a spectrum; it depends on how your body perceives and adapts to the fiber and that applies to all dietary fibers.*

# Science matters!

## More data, more reliable

**Chicory root fibers** are **equally well-tolerated** compared to other fibers, but have the most scientific data on digestive tolerance of all fibers.



## Why does this matter ?



**More data means more reliable.** This is very important as digestive tolerance outcomes are highly individual. Picking out just one study and look at tolerance is not reliable.

**Tested persona groups of different ages,** including healthy individuals and those with minor health issues like occasional constipation or overweight.



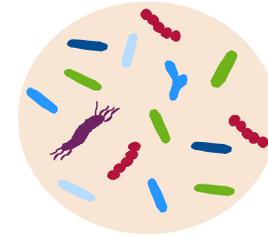
**Digestive Tolerance measured in a wide range of food applications** including solid (e.g. snack bars, muffins, jellies, chocolate) and liquid (e.g. beverages, yoghurts) applications.

# **Inulin and Oligofructose from Chicory Root**

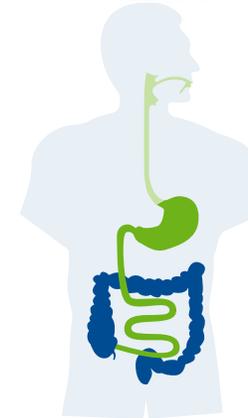
**Weight Management**

# Chicory root fiber helps you to eat less, naturally and helps you to stay healthy

Chicory root fiber as part of the daily diet



Prebiotic fermentation\* → positive shift in gut microbiota and formation of short chain fatty acids



Increase in the gut hormones responsible for satiety such as GLP-1  
**AND**



Effects on satiety regulation in the brain (via the gut-brain axis)



Less energy intake over time

Metabolic improvements

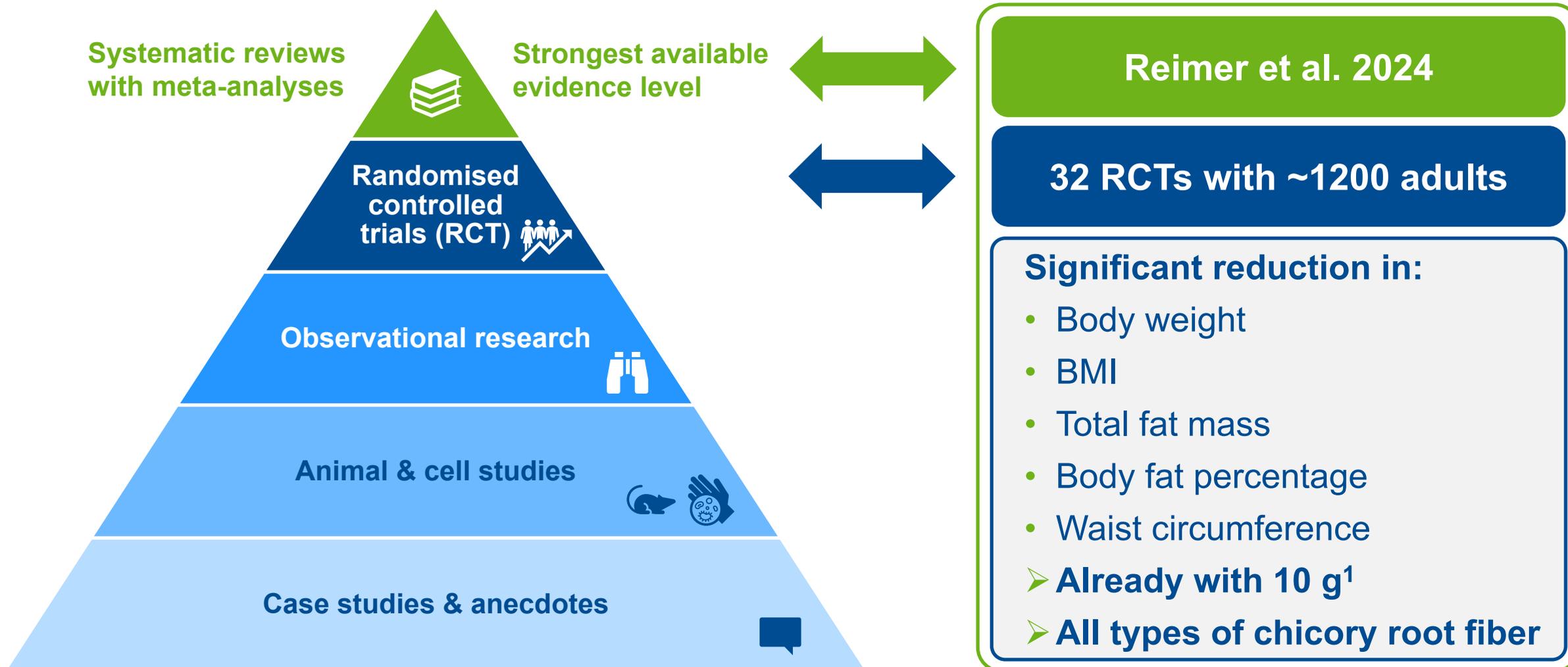


Positive changes in body weight & body composition



# Chicory root fiber for weight management

## Systematic review with meta-analysis provides new opportunities



Systematic review with meta-analyses based on chicory root fibers using Cochrane methodology<sup>2</sup>

Reimer et al. (2024) ACJN: online ahead of publication. [https://ajcn.nutrition.org/article/S0002-9165\(24\)00751-2/pdf](https://ajcn.nutrition.org/article/S0002-9165(24)00751-2/pdf)

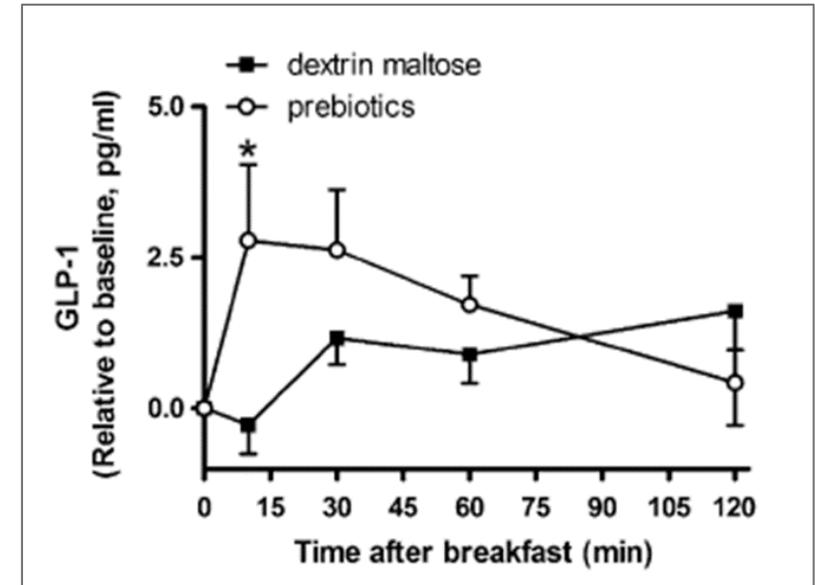
1 Derived from the median of the investigated studies

2 Guidelines of the Cochrane Handbook for Systematic Reviews of Interventions and the PRISMA standards of quality for reporting systematic reviews and meta-analyses

# Chicory root fibers promote the release of GLP-1 in humans

## Chicory root fiber significantly increased GLP-1 secretion and showed related effects

- Significantly increased release of GLP-1
- Significantly lower hunger score (at 180 minutes)
- Higher satiety after breakfast
- Reduced total energy intake by ~ 6%

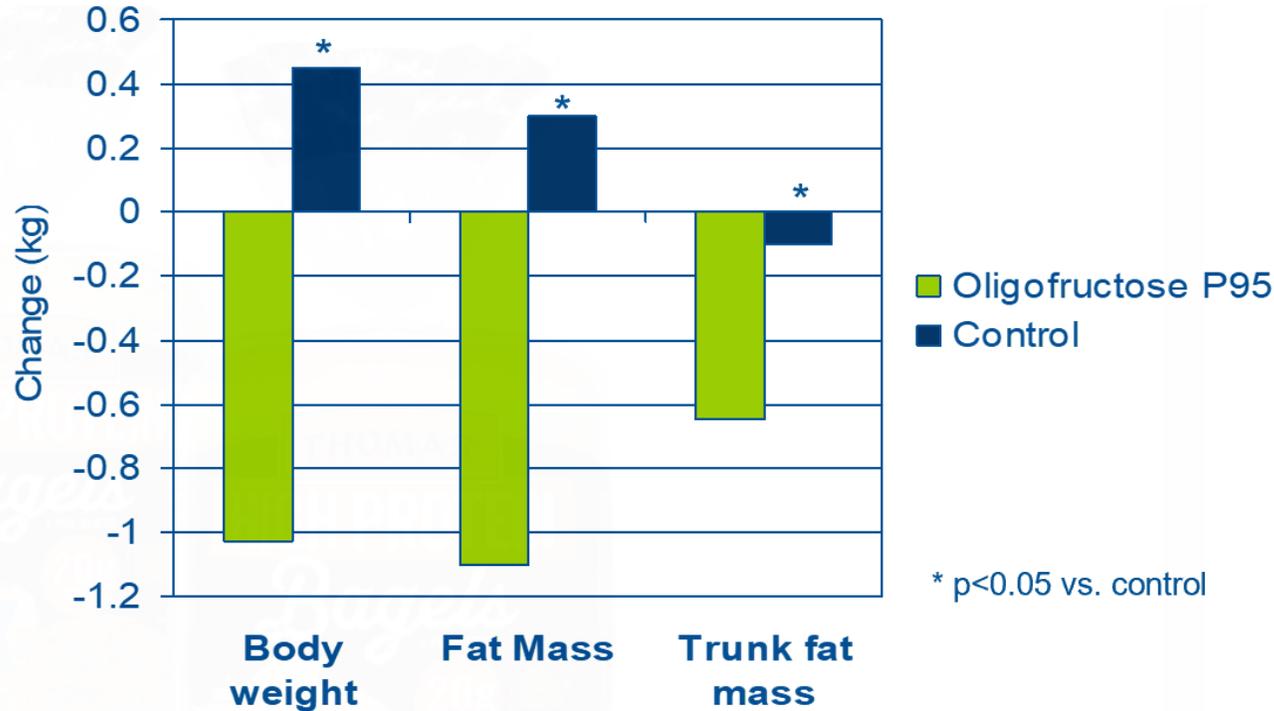


**Chicory root fiber supplementation stimulated the release of satiety hormones, including GLP-1 which seems to contribute to appetite sensations and food intake.**

double-blind, randomised, parallel, placebo-controlled intervention study in 10 healthy, normal-weight adults  
16 g/d (2 x 8 g/d) Orafit®Synergy1 or placebo (maltodextrin) at breakfast and dinner as part of usual diet for 2 weeks

# Chicory Root Fiber Reduces Abdominal Fat Mass

Oligofructose (Orafti®P95) supplementation (21 g/d) for 3 months in overweight and obese adults



## *The American Journal of CLINICAL NUTRITION*

Weight loss during oligofructose supplementation is associated with decreased ghrelin and increased peptide YY in overweight and obese adults.

*Parnell Jill A., Reimer Raylene A.*

\* p<0.05 vs. control



Fiber group lost 2.4lbs (1.1 kg) body weight with oligofructose (Orafti®P95)

- Mainly body fat mass, in particular trunk fat mass

Placebo group gained 1 lb. (0.5 kg) body weight

**Design:** 12-week intervention study – first long-term study of OF effect on body weight.

Parallel design, double-blind, randomised, placebo controlled, n = 48 overweight to obese adults (age 20-70 yrs, average BMI ~30 kg/m<sup>2</sup>)

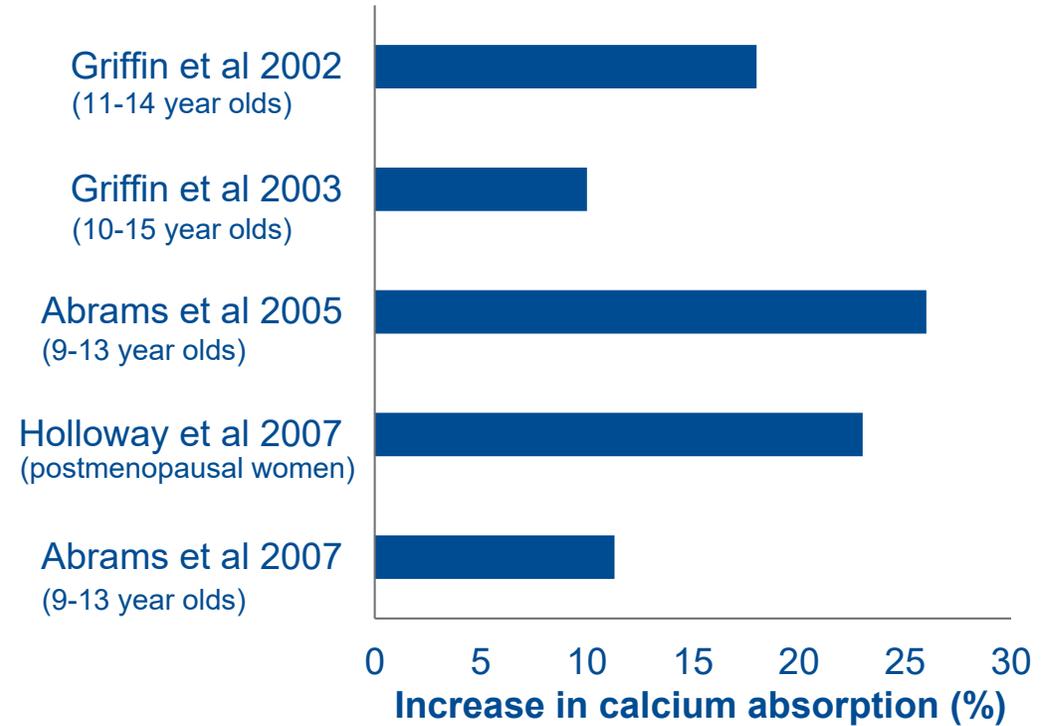
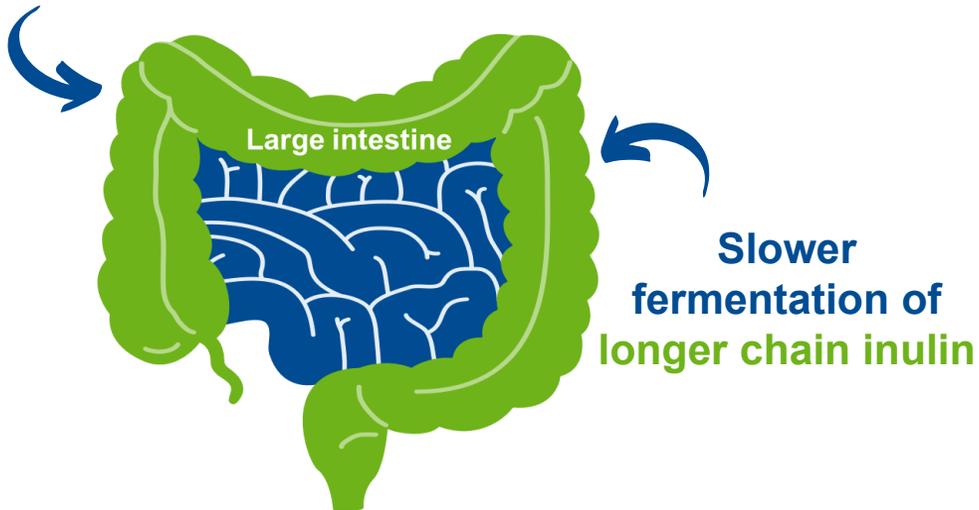
Intake: 21 g/d (3 x 7 g/d) Orafti®P95 or placebo (maltodextrin in isocaloric amount) with meals as part of the usual diet, no modification in diet or physical activity

# Inulin and Oligofructose from Chicory Root

**Bone Health**

# Oligofructose-enriched inulin improves calcium absorption

Rapid fermentation  
of **shorter chain  
oligofructose**



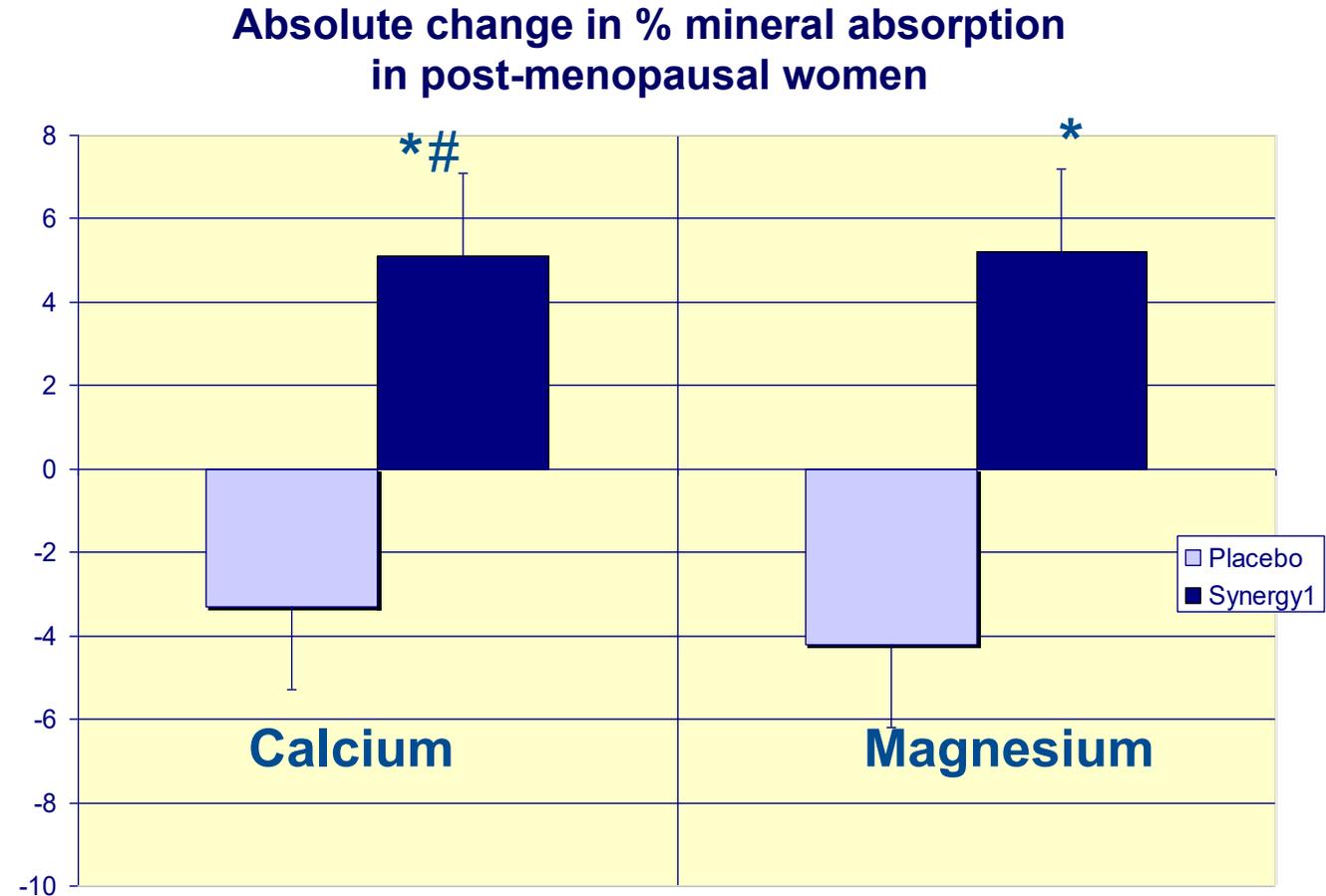
Abrams et al. (2005) Am J Clin Nutr 82(2):471–476. <https://academic.oup.com/ajcn/article-pdf/82/2/471/23960080/znu00805000471.pdf>

Peacock (2010) Clin J Am Soc Nephrol Jan 1;5(Supplement 1):S23-30. <https://pubmed.ncbi.nlm.nih.gov/20089499/>

Orafti@Synergy1 is an oligofructose-enriched inulin containing 50% shorter chain inulin (oligofructose with DP of 2-9) and 50% longer chain inulin (inulin with DP ≥10)

# Increased absorption of calcium and magnesium in postmenopausal women

- Ca and Mg absorption, as well as bone biomarkers in postmenopausal women (n=15) with Oligofructose-enriched inulin 10 g/d for 6 weeks
- Significant increase in Ca absorption with Oligofructose-enriched inulin vs. baseline
- Significantly higher Ca and Mg absorption with Oligofructose-enriched inulin vs. placebo:
  - Difference is 8% in Ca absorption (relative difference of 31%)
  - Difference is 9% in Mg absorption (relative difference of 13%)



\* Significant difference in Ca and Mg absorption between Orafiti®Synergy1 and placebo (p<0.05)

# Significant increase in Ca absorption with Orafiti® Synergy1 vs. baseline (p<0.05)

# Chicory Root Fiber: Key Benefits for Women's Health

## Several Benefits for Women's Health:

- ✓ Proven Prebiotic Fiber
- ✓ Selectively nourishes beneficial gut bacteria
- ✓ Contrary to popular belief, it is well-tolerated
- ✓ Has the strongest evidence for weight management support
- ✓ Enhances calcium absorption and supports bone health



# Palatinose™ (isomaltulose)

GLP-1 Release

# Introducing Palatinose™ (generic: isomaltulose)



Palatinose™ is a “**slow release**” carbohydrate:  
It supplies the body with **the full carbohydrate energy**  
in a **slow** way, reflected by a low and balanced blood glucose profile.  
In addition, it is a tooth-friendly sugar.

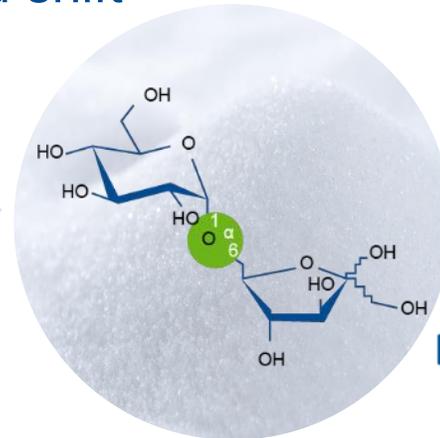
- Like sucrose composed of glucose and fructose
- A natural constituent of honey
- Produced from sugar via the bond shift



Sugarbeet



Sugar



palatinose™  
isomaltulose



# Digestibility is key

## Palatinose™ is a slow release carbohydrate

### Palatinose™ is a fully digestible “slow release” carbohydrate

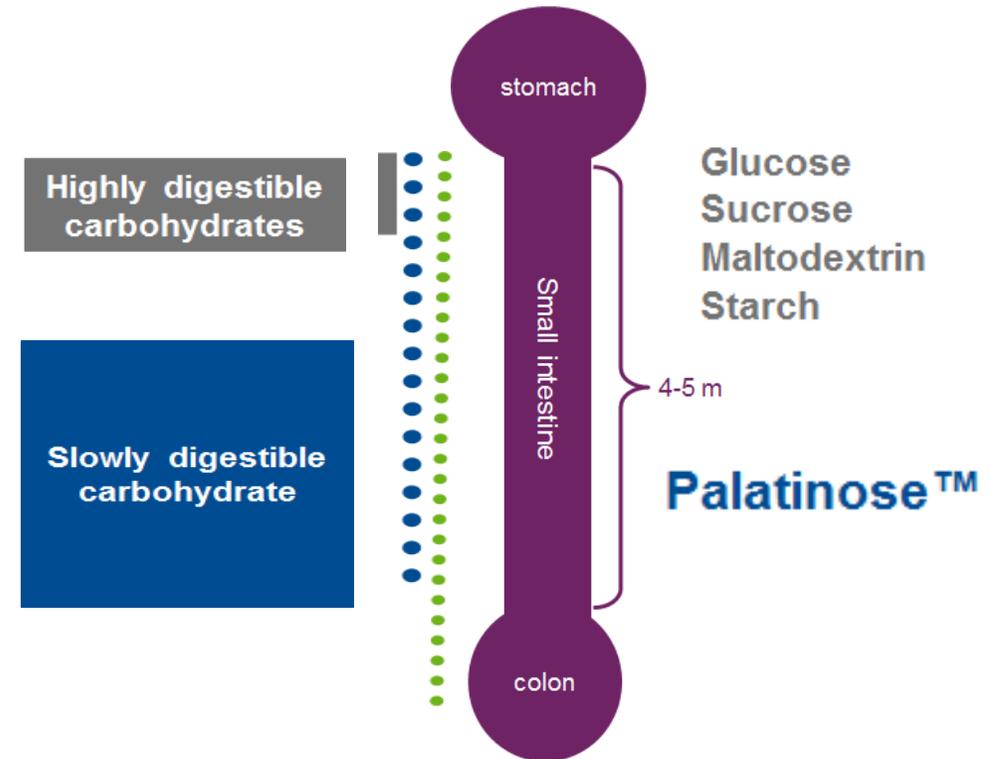
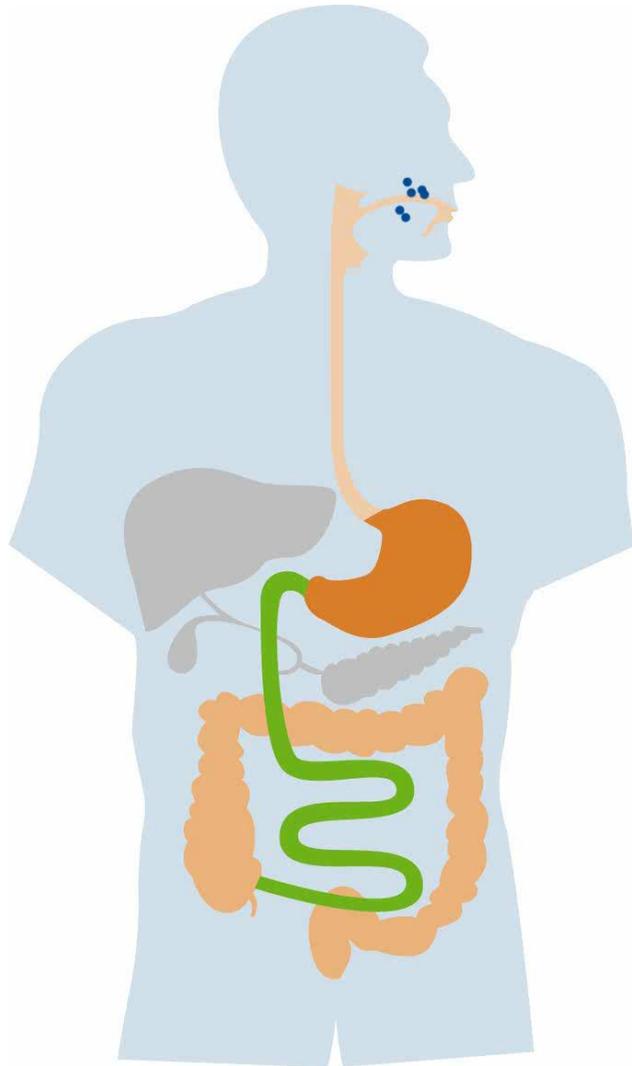
The digestion rate is ***much lower*** compared to sucrose (about 4-5x more slowly) leading to sustained energy delivery

#### Small intestine

- Slow and complete digestion by human enzymes and subsequent absorption
- Low GIP response, higher GLP-1
- Slow glucose release (low glycemic)
- Full carbohydrate energy (4 kcal/g)

#### Large intestine

- good digestive comfort, similar to sucrose

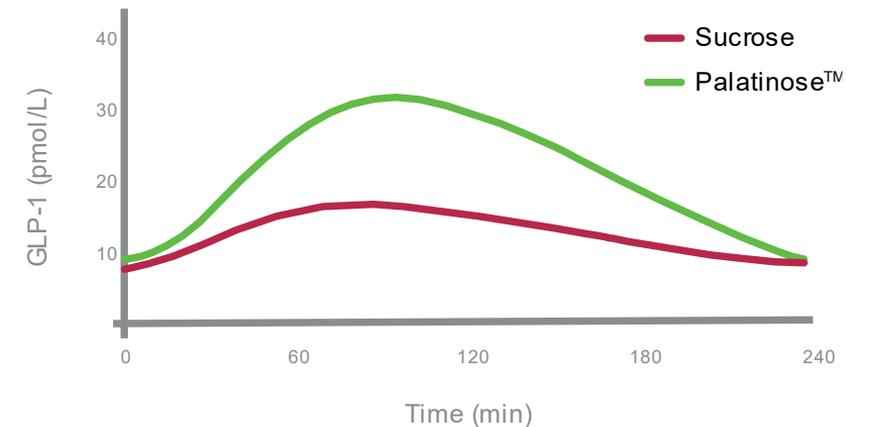
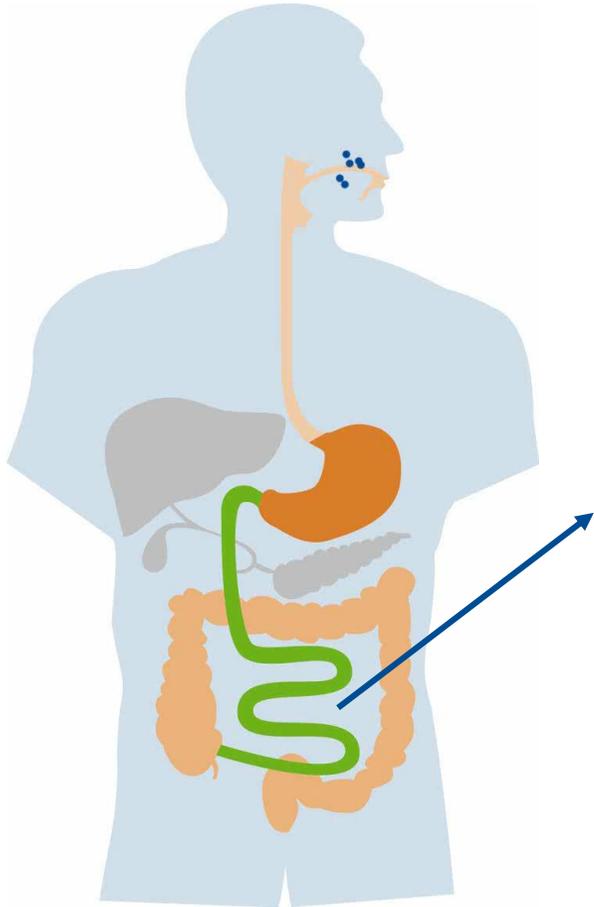


# Palatinose™ promotes the release of GLP-1

## A result of its slow-release property

### Palatinose™ is slowly digested and absorbed along the small intestine

- Palatinose™ digestion and absorption occurs mostly in the lower small intestine
- **GLP-1 is released from L cells** located in the lower small intestine,
- Palatinose™ stimulates the release of GLP-1



# Palatinose™ improves GLP-1 response after subsequent meal

- 2nd meal study in double-blind, randomized, placebo-controlled, cross-over design
- 30 women and men with overweight of which 15 had diabetes (>49-77 years)



Standardized breakfast

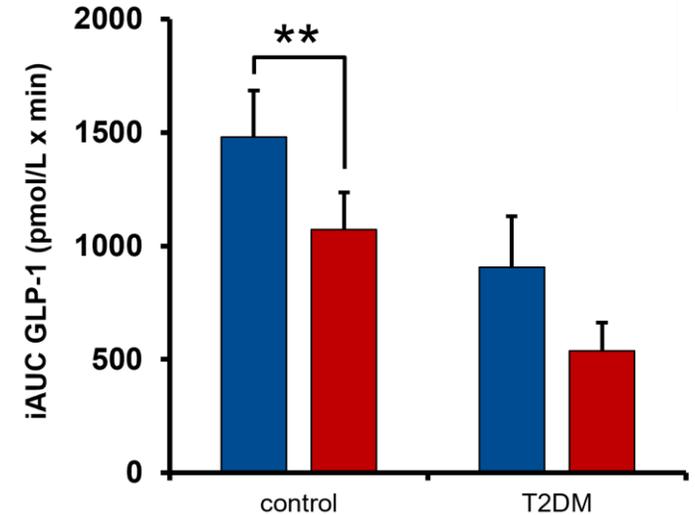
Drink\* with 50g Palatinose™ / 50g sucrose

Standardized lunch



2nd-meal effect

Palatinose™ promotes GLP-1 release even when its intake is followed by a complex meal 1 h later



\*Test drink was a citrus beverage containing 50g Palatinose™ or sucrose. Standardized breakfast were two slices toast with jam and the standardized lunch was a ready-made meal “Spätzle”.

# Palatinose™ (isomaltulose)

Weight Management

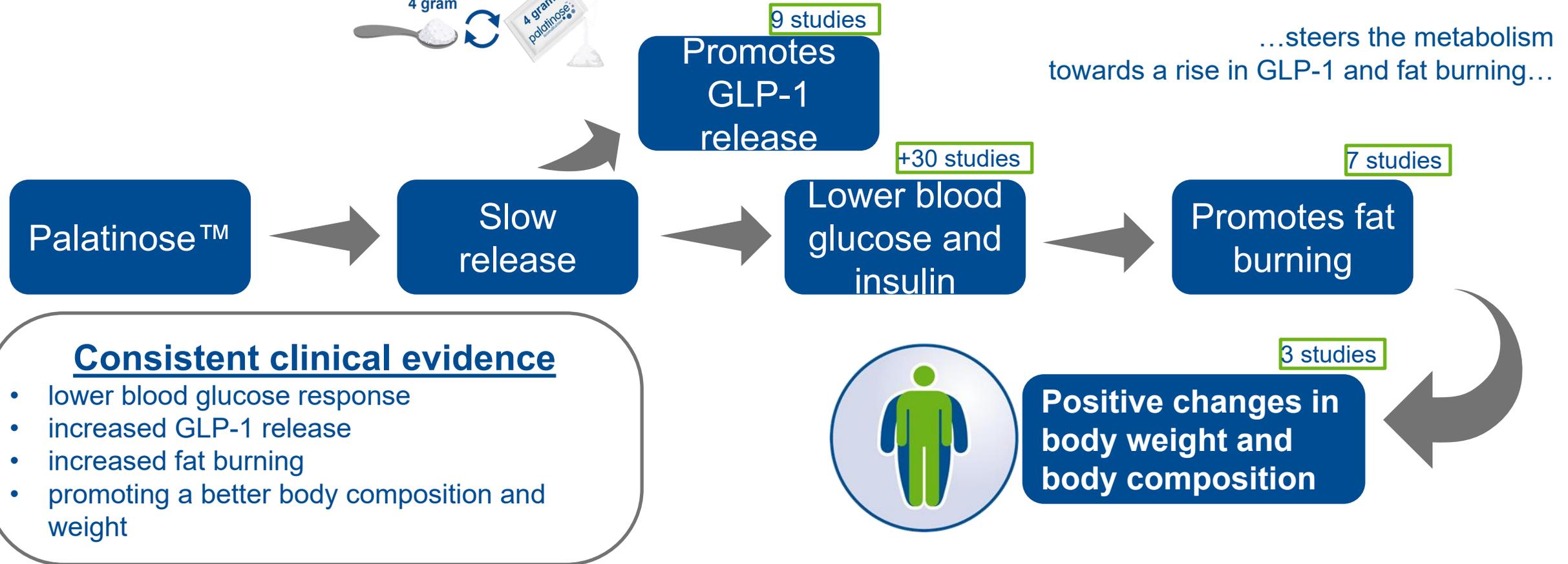
# Weight management with Palatinose™

## Steering the metabolism towards fat burning

Palatinose™ provides full carb energy and yet...



...using low glycaemic Palatinose™ instead of traditional high glycaemic sugars and carbs...

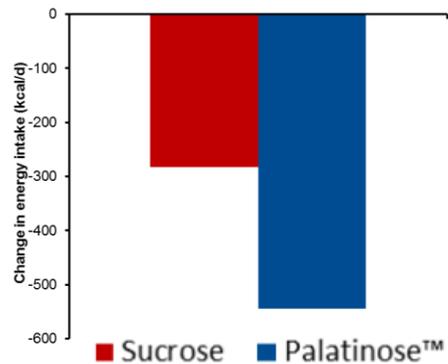


# Palatinose™ supports body weight management

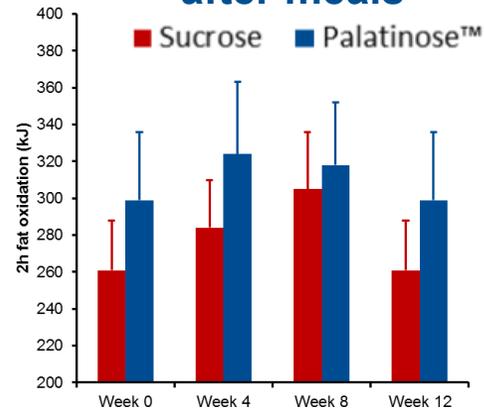
## Replacement of sucrose with Palatinose™ as part of an energy-reduced diet

- Significantly reduced energy intake
- Promoted fat burning
- Increased body weight loss
- Significantly reduced body fat

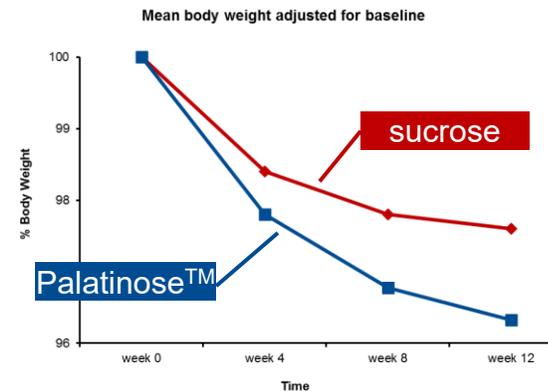
### Lower energy intake at week 12



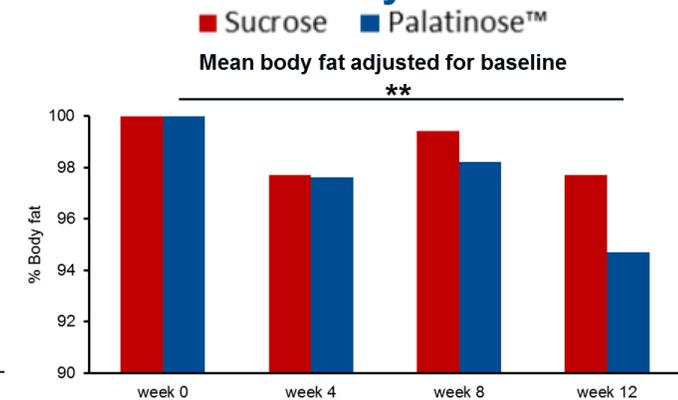
### Increased fat burning after meals



### More weight loss over 12 weeks



### Greater reduction in body fat



## Summary

# Women on GLP-1s Deserve More: Natural, Clinically Proven Solutions for Whole-Body Wellness and Beneo Delivers

### Chicory root fiber

- ✓ Digestive health
- ✓ Well-tolerated
- ✓ Weight management
- ✓ Bone health

### Palatinose™ (isomaltulose)

- ✓ GLP-1 Release
- ✓ Weight management



**Mood** is a rapidly emerging area in women's health research-stay tuned!

# Pitch Perfect Story Ideas for Media

**Gut Feeling:** Why Prebiotic Fiber is a Game-Changer for Women's Wellness

**The Wellness Boost** Women are Missing: Prebiotic Fiber Explained

How **30 Years of Research** Changed What We Know About Prebiotics

**Prebiotics at 30:** The Science Behind Their Expanding Role in Health

**GLP-1s and Her Nutrition:** The Wellness Shift No One Saw Coming

**GLP-1s and Nutrition Unpacked:** What Women Should Know about the Hottest health Topic

**Rethinking Carbohydrates:** Why Palatinose is Gaining Attention in Women's Wellness

**Inulin and Women's Digestive Tolerance:** What the Science Really Shows

# What Products contain these Functional Ingredients?



Product	Functional Ingredient
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Energy chews	Isomaltulose
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Cookies/bars	Chicory root fiber
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Fiber bars	Chicory root fiber
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Fiber gummy supplement	Chicory root fiber
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Daily nutrition gummy supplement	Chicory root fiber
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Protein crackers/shakes	Chicory root fiber
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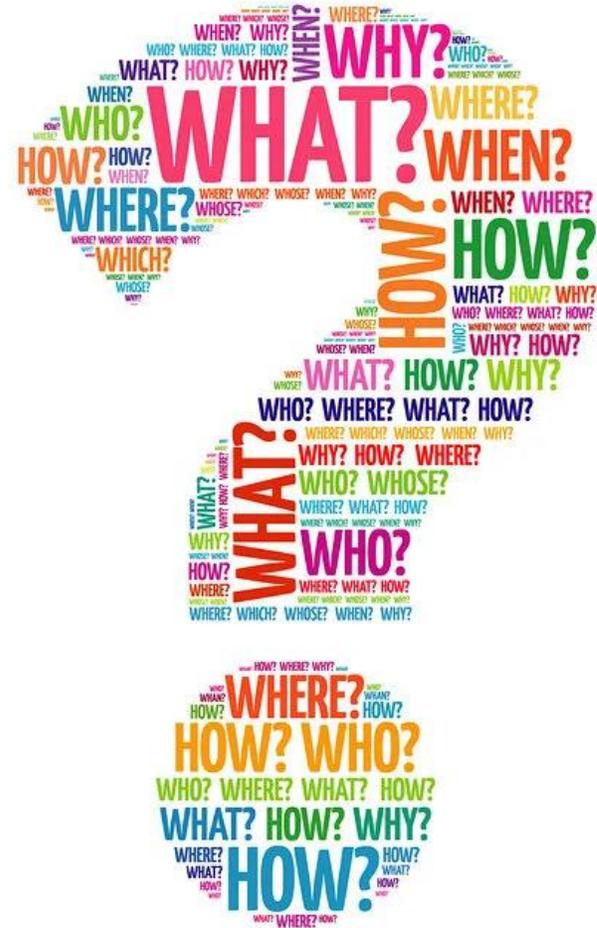
# Access the Nutrition News Update Press Kit

## What's Inside?

- Pitch and story ideas
- The latest news in nutrition & innovation
- Fact sheets
- Research and more!



# Questions?





**Thank you!**