

The Latest in Plant-Based Omega-3 ALA Research and Nutrition Education Approaches to Meet Generational Needs

March 3, 2022



rediscover  goodness
OLDWAYS

About Oldways

Nutrition nonprofit founded in 1990

Mission: To inspire people to embrace the healthy and sustainable joys of the old ways of cooking and eating

Best Known for: Creating the Whole Grains Council and Whole Grain Stamp, Culinary Travel, Creating the Mediterranean Diet Pyramid



Housekeeping

- Attendees will receive an email within ONE WEEK with CPEU certificate, slides, and recording
- Visit oldwayspt.org/CPEU to register for upcoming webinars or view recordings of previous webinars
- Please submit any questions using the Q&A function in Zoom
- Thank you to the California Walnut Commission for sponsoring this session!



Webinar

Communicating Whole Grain Content to Shoppers

What Food Makers Need to Know

April 6 • 2:00 PM E.T.

OLDWAYS



OLDWAYS
WHOLE
GRAINS
COUNCIL

Next Webinar: 4/6/2022

Continuing Education Performance Indicators

- 2.2.3 Delivers accurate and credible messaging.
- 8.1.2 Integrates knowledge of biological, physical, and social sciences with knowledge of food and nutrition to make decisions related to nutrition care.
- 8.1.5 Demonstrates knowledge of nutrient requirements throughout the lifespan, and their role in health promotion and disease prevention.
- 9.1.1 Demonstrates and applies age-appropriate education principles.



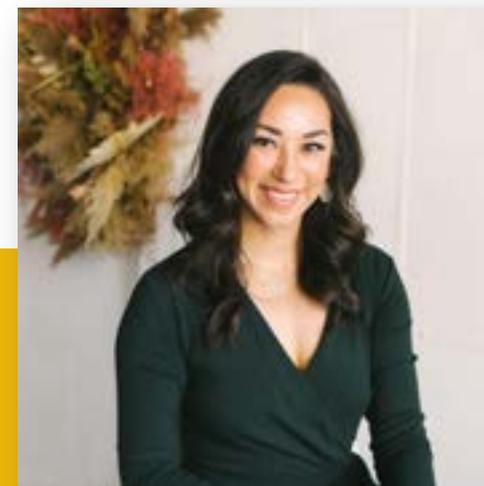
Today's Speakers



**Gretchen Vannice,
MS, RDN**



**Megan Boitano,
MS, RDN, LDN**



**Cara Harbstreet,
MS, RDN, LDN**





Importance of Omega-3s: Clarifying Confusion and the Latest Research

Health Begins with Our Fork

Not a vitamin or a mineral, omega-3 fatty acids are *essential*, not optional, fats in human nutrition:

- ALA naturally occurs in select nuts and seeds, as well as a few other plant-based foods
- EPA & DHA occur in marine sources

Fats occur in many foods, in both plant and animal kingdom.

Fats are an important source of calories.

Today is a refresh on the state of the science on omega-3 ALA, found in foods of the earth.





Omega-3 Fats

It is chemistry: All omega-3 fats contain first double bond at the 3rd carbon from the Omega end of the fatty acid chain.

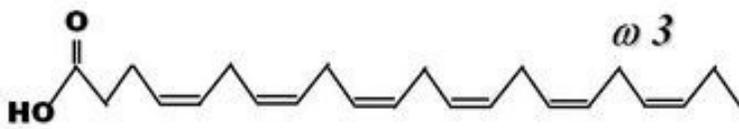
C18:3^{cis} Δ 9,12,15
ALA



C20:5^{cis} Δ 5,8,11,14,17
EPA

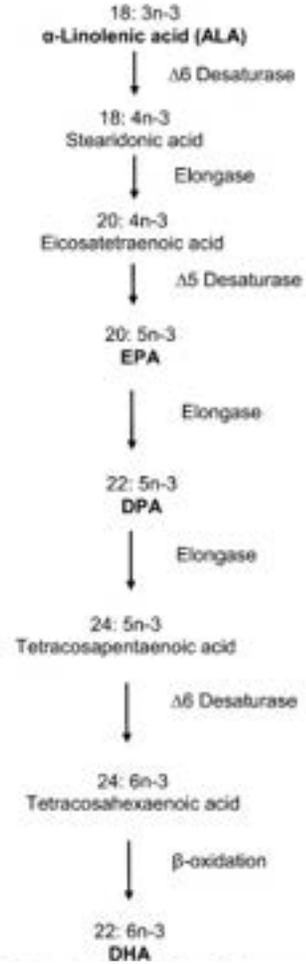


C22:6^{cis} Δ 4,7,10,13,16,19
DHA



Am J Clin Nutr. 2010;92(5):1040-51.
J Nutr. 1998;128(2 Suppl):427S-433S.

ALA is the parent omega-3



Omega-3 Food Sources



ALA FOOD SOURCES

Per serving (1 oz.):
Walnuts (2.57g), ground flax seeds (6.55g), chia seeds (5.05g), soybean oil (0.95g)



EPA FOOD SOURCES

Oily fish, seafood



DHA FOOD SOURCES

Oily fish, seafood, egg yolks



Omega-3 Intake Recommendations

Intake Recommendations:

ALA:
Adequate intake is 1.1 g/day women,
1.6 g/day men (0.5% energy)¹

EPA & DHA:
250 mg/day²



Actual Intake:

ALA:
Men & women > age 20 1.95 g/day³
Children > age 2 - 19y 1.46 g/day³

EPA and DHA:
100 mg/day⁴



Currently consume, males and females:

Age 2-19 15.36 g/day LA - vs. 1.46 g/day ALA
> Age 20 18.44 g/day LA - vs. 1.95 g/day ALA



1. *J Acad Nutr Diet.* 2014;114(1):136-53.
2. https://www.who.int/nutrition/topics/FFA_summary_rec_conclusion.pdf?ua=1
3. U.S. Dept Agriculture, ARS. 2020. Nutrient Intakes from Food and Beverages: Mean Amounts Consumed per Individual, by Gender and Age, What We Eat in America, NHANES 2017-2018.
4. *Nutrients.* 2020;12(7):2045.

Understanding Confusion Areas Around Omega-3s



Name Problem:

Not a vitamin, not a mineral? It's a fat, but it's essential?!



Lack of RDA? So, is it important?

There's a level of consumer expectations to see recommended intakes.



Plant versus Marine:

Food sources, functional benefits, preferences and diet/lifestyle choices.

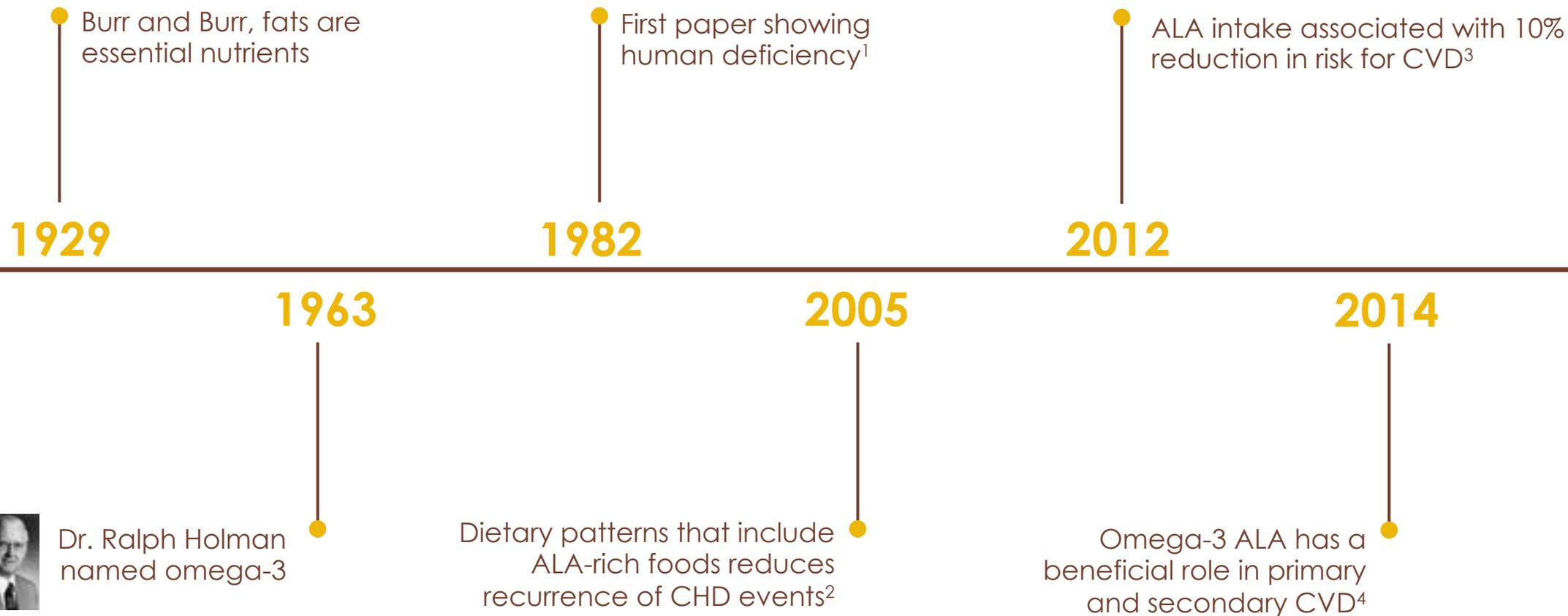


Media Messaging and Misinformation

Not all nuts provide same nutrition – walnuts are an excellent source of omega-3 ALA (2.5 g/oz).



The History of ALA Research



1. *Am J Clin Nutr.* 1982;35(3):617-23.
2. *Altern Ther Health Med.* 2005;11(3):24-30.
3. *Am J Clin Nutr.* 2012;96(6):1262-73.
4. *Adv Nutr.* 2014;5:863S-876S.



The Latest ALA Research

2021

- Higher intake of ALA associated with less risk for death from all causes, CVD, and CHD¹
- Each 1 gram increase of ALA associated with 5% lower risk of death from heart disease¹

- Consuming ALA associated with lower CVD incidence in people with low intake of EPA and DHA (< 0.250 g/day)²

- ALA intake associated with 10% reduction in risk for CVD and 20% reduction in risk for death by CHD⁴

2022

- Every 0.5% increase in ALA intake associated with 5% lower risk for death by CVD³

- ALA intake associated with 7% reduction in risk for death by all-cause, 10% reduction in death by CVD³

- ALA intake reduced total cholesterol, LDL-C, TG, and BP⁴



1. *BMJ*. 2021;375:n2213.
2. *Euro J Clin Nutr*. 2021;75:1483-1490.
3. *Front Nutr*. 2021;8:2296-861X.
4. *Advances in Nutrition*. 2022; published online ahead of print February 16, 2022.

Looking Forward

Emerging evidence suggests roles for ALA:

- Immune health and inflammation (oxylipins and hydroxylipins made from omega-3 fatty acids)
- Supporting brain health and function
- Vascular health and circulation

Just because we have more *clinical* evidence on EPA and DHA, does not make ALA less valuable.

Humans cannot insert a double bond at the 3rd carbon on the fatty acid chain - we need omega-3 fats.





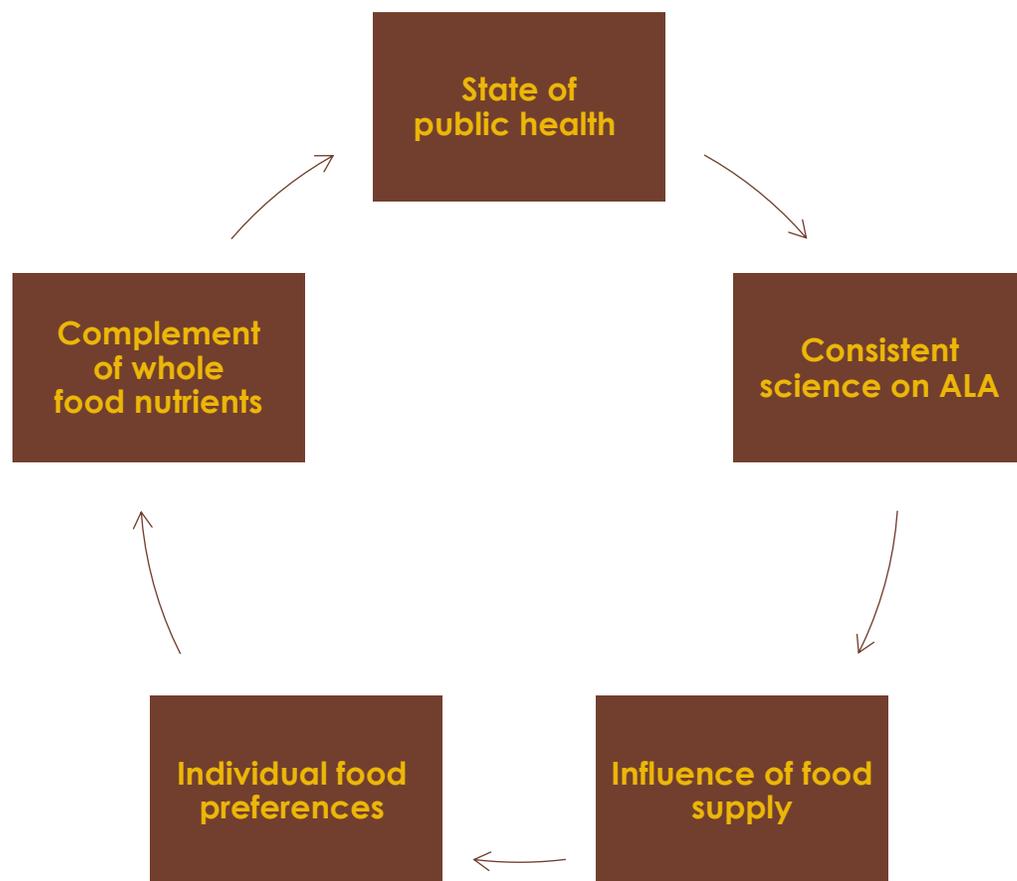
Looking Forward

Scope of Practice¹, states our best practice is to apply evidence-based knowledge.

We can be confident with what we know today.

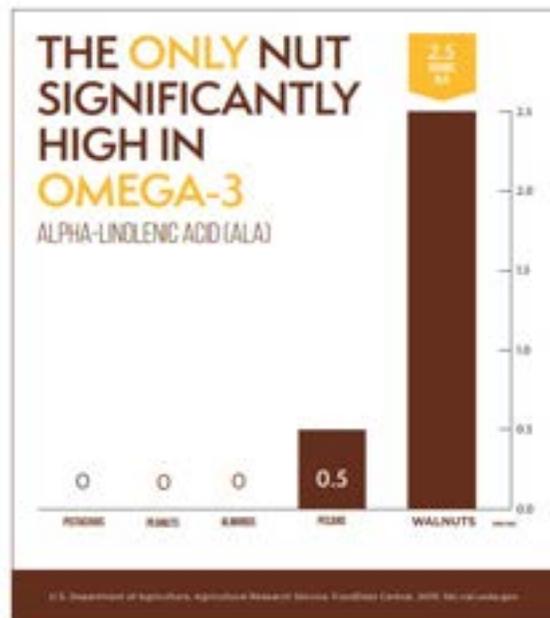
Best practice and evidence indicates a clear need and benefit of ALA in human health.

> 40 years research indicates health benefits of ALA consumed as ALA.



Adding ALA Whole Food Sources into Eating Patterns

- Whole food sources, like walnuts are accessible, versatile, and convenient fitting into many recommended eating patterns like the Med-Diet
- Walnuts are the only nut that provides an excellent source of omega-3 ALA (2.5g/oz)



IN JUST ONE OUNCE YOU GET:

4g of protein

2g of fiber

A good source of magnesium
(45mg)

PLUS

Vitamin B6,

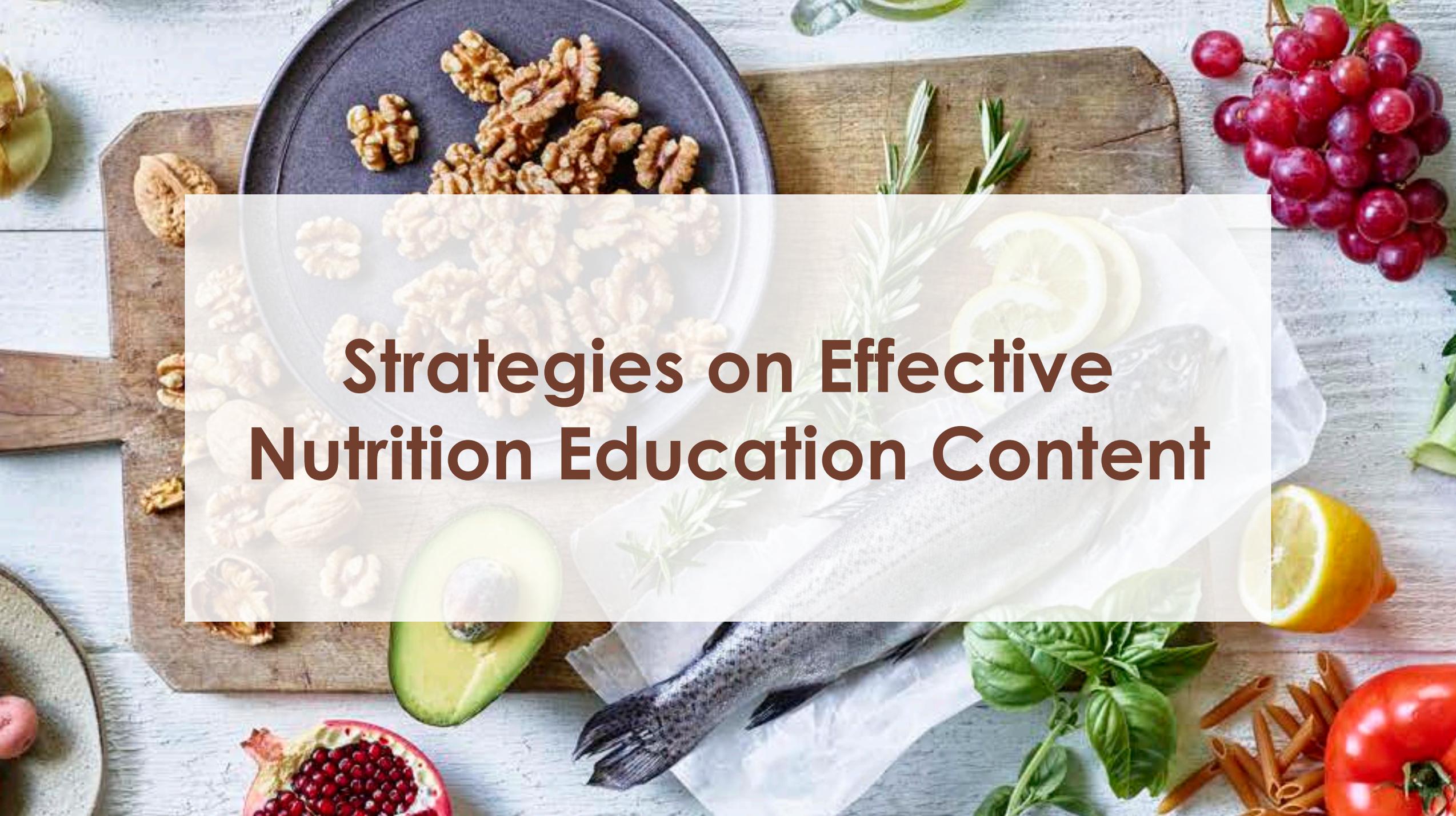
Melatonin, and

Copper

PLAY A KEY ROLE IN MANY DIETARY PATTERNS

Plant-Forward Eating and

Mediterranean Diet

A top-down view of various fresh ingredients including walnuts, grapes, avocado, fish, basil, and tomatoes on a wooden surface. The ingredients are arranged on a light-colored wooden surface. In the center, a whole fish is wrapped in white paper, garnished with lemon slices and rosemary. To the left, a dark plate holds several walnuts. Below the fish, there is a halved avocado, a bunch of fresh basil, and a whole red tomato. In the bottom left, there is a pomegranate with its seeds exposed. In the bottom right, there are cinnamon sticks. In the top right, there is a bunch of red grapes. The overall scene is bright and fresh, suggesting healthy nutrition.

Strategies on Effective Nutrition Education Content

Nutrition Education Content

Handout



Tip sheet

How to/tutorial

Worksheet

Mini-guide

Resource list

Checklist

Quiz



4 Keys for Content Creators



Your resource is a solution.

Answer a common question or challenge.



Novel isn't necessary

Focus on identifying and addressing gaps in existing resources.



Narrow your audience

Clarity makes content creation easier and more impactful.



Impact > Information

Write a solution statement that describes outcome your resource will deliver.

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Translating Research into Education Content



Explain ALA's mechanism of action including inflammatory pathways and oxidative stress.

Compare and contrast various dietary guidelines for ALA and how RDAs are developed.



Explain how ALA helps with health goals or impacts disease process.

Identify excellent sources of ALA and provide portion sizes to meet AI.



Age	AI (g)	Upper Limit (g)
1-3 years	0.7	1.0
4-13 years	0.9	1.3
14-18 years	1.1	1.6
19-50 years	1.1	1.6
51-70 years	1.1	1.6
71+ years	1.1	1.6
Pregnant or lactating	1.3	1.9
Infants	0.2	0.3

The average EPA intake in the U.S. population is 0.25 g per day. The average DHA intake in the U.S. population is 0.15 g per day. The average total omega-3 intake in the U.S. population is 0.4 g per day.

AI = Adequate Intake. UL = Upper Limit. EPA = eicosapentaenoic acid. DHA = docosahexaenoic acid.

Source: National Academies of Sciences, Engineering, and Medicine. 2015. Dietary Reference Intakes for Vitamin A, Vitamin K, Selenium, and Chromium. Washington, DC: National Academies Press.



Create with Purpose



Answer a question:

Which plant foods are best sources of omega-3 ALA?

Identify gaps:

There are lists of foods with mg per serving but lack ideas for how to easily fit into meals/snacks.

Define impact:

Confidently identify meals that include an excellent source of omega-3 ALA



Information that looks easy to read will get more attention.



Define excellent source for ALA

Compare ALA content in foods

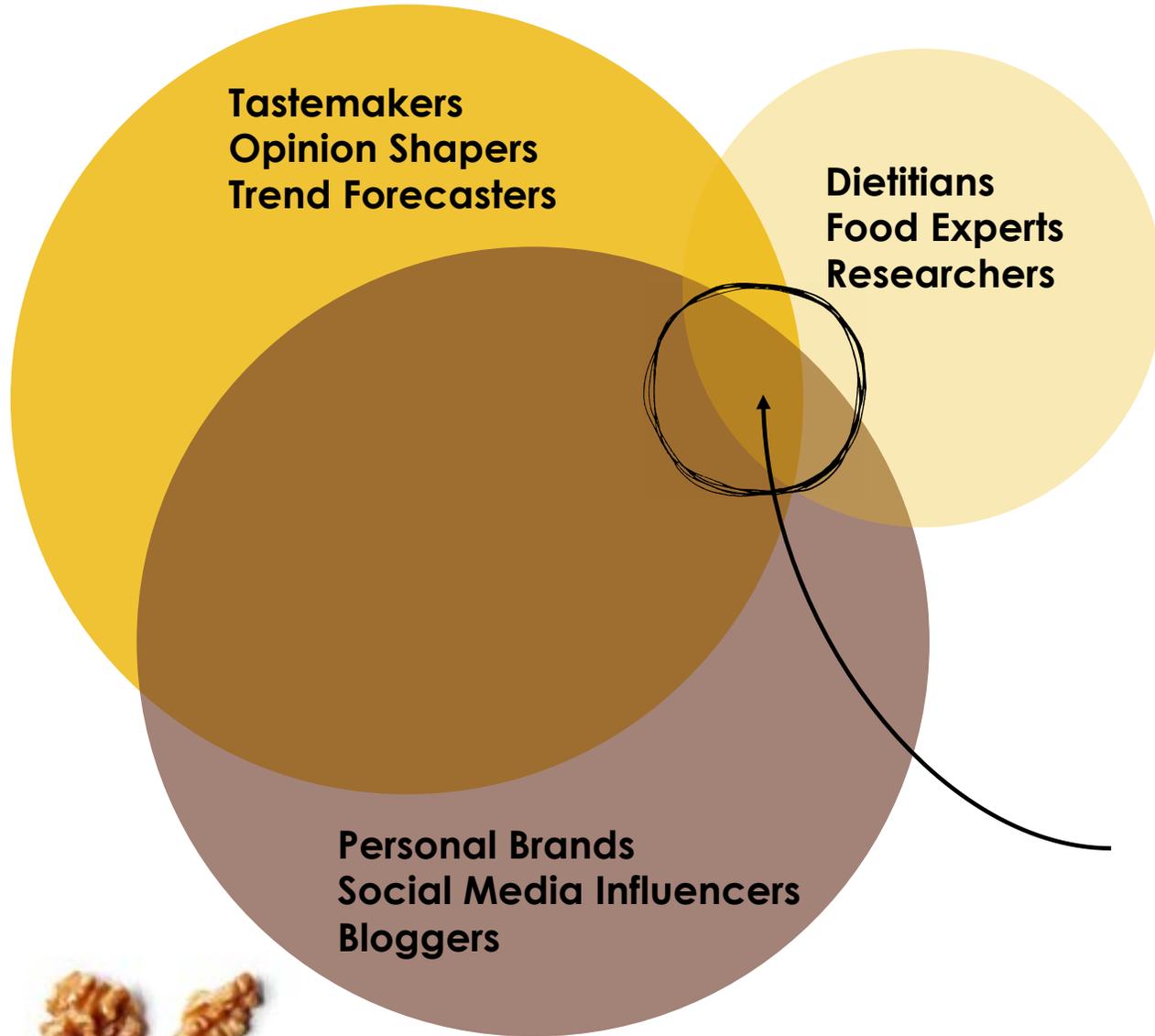
List excellent source of ALA as well as other foods with ALA

Provide 5 simple, plant-based meals with excellent source of ALA



A top-down view of various fresh ingredients on a light-colored wooden surface. In the upper left, there are several florets of green and purple broccoli. To the right, three brown eggs are visible, along with a whole orange and a partially peeled mandarin orange. In the foreground, there are several walnuts and a pile of small, light-colored seeds. The background is softly blurred, showing more of the ingredients and a white bowl.

Best Practices for Creating Compelling Nutrition Education Content Featuring Research



Question to consider:

Who do you see yourself as?
An influencer vs. a person with
influence

We want to be

HERE



KNOW

“Book Smarts” - outdated model of presenting information, emphasis on rational understanding of the concepts.



FEEL

“Street Smarts” or Storytelling - facilitates and embodies a working understanding, driven by feelings & emotions to elicit a response to the material.



DO

Taking Action - applying the teachings, building a habit, and committing to sustained behavior change.



SHARE

Spreading the Word - evangelizing their successes, generating interest and excitement, becoming a change-maker in their networks.

Best Practices

DON'T rely on jargon, unfamiliar acronyms, or overly academic language

DON'T speak in absolutes

DON'T try to fit too much on one screen

DO acknowledge the limitations of the research

DO sprinkle in some methodology

DO emphasize the nuance and how it may not apply for everyone



Know Your Audience

Health Literacy and Digital Literacy Learning Styles

- Visual, Auditory, Reading & Writing, Kinesthetic

Questions to Consider:

- Peer to Peer or Public Facing?
- Interpersonal or to a Group?
- Casual Register or Formal Register?
- Cultural Values and Worldview?





streetsmart.rd

Paid partnership with cawalnuts



View insights

Boost Post

If you're into meal prep (because hello [#selfcare](#), not food rules!) you can even cook your sweet potatoes ahead of time. I reheat mine in the microwave and before my coffee is done brewing, I can pull together a breakfast like this.

It can be hard for most of us (myself included! 🙋) to get enough servings of fruits and vegetables each day. But pairing up the ones that taste good to you AND topping with a flavorful, nourishing ingredient like [@CAWalnuts](#) (a 1-ounce serving includes 4g of protein, 2g of fiber, 2.5g omega-3 ALA, and a good source of magnesium (45mg!)) can make this *chef's kiss* so much easier.

Check out my stories for more on this and then tell me: which plant foods do you rank in your top three?



Know Your Strengths

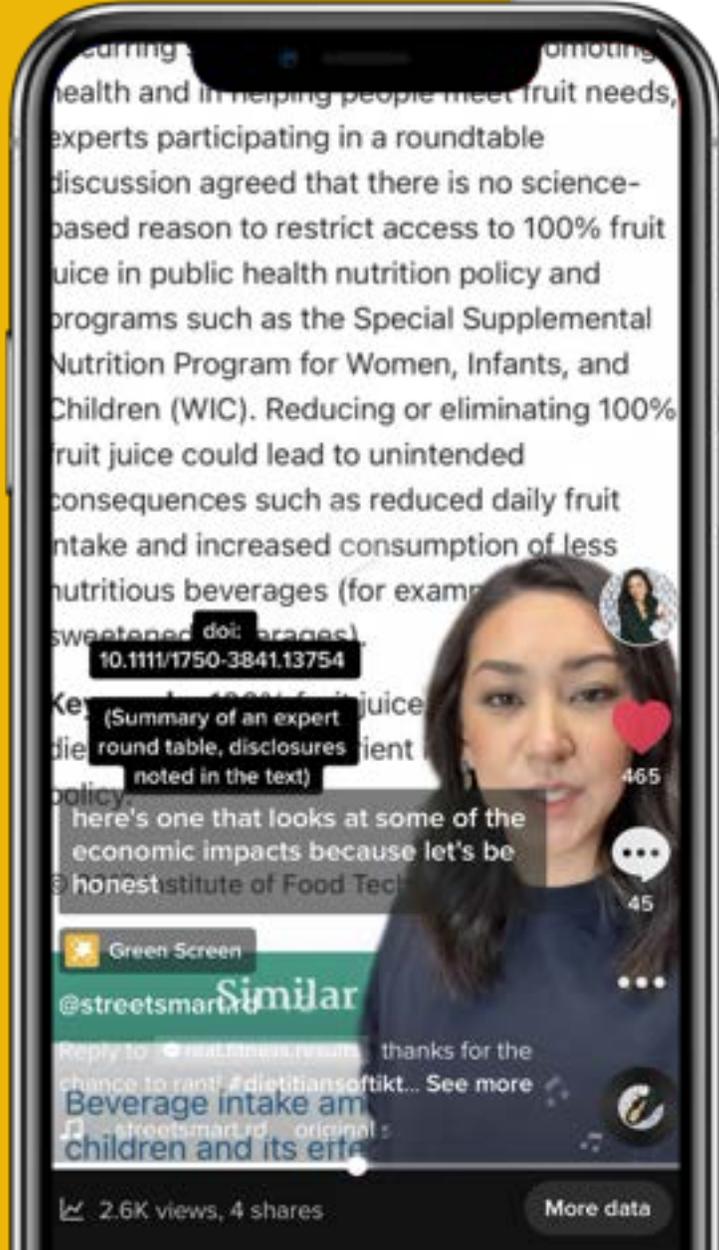
Continue building your strengths or filling gaps in your skill set

- Creative writing or storytelling exercises
- Hone your brand voice and persona
- Free or paid workshops for graphic design, design principles, enhanced branding

Cultural Competency and Inclusivity

- Audit current messaging to determine if it's as culturally considerate & inclusive as possible
 - Goal is not to be all things to all people, but reduce harm and center the needs of historically marginalized people and communities
 - Equity consultants available for this service





Citations & Credit

Give credit where credit is due + promote a culture of collaborative learning

- Check for permissions & boundaries
- Use consistent style for efficiency, recognizability
 - Example: Citation Machine
 - PMID:[insert] or DOI:[insert]
 - Bitly: digital tool for shortening links

Examples

- Tag in the photo or image, include in the caption
- Reference Slide for presentation, carousel post, or Twitter thread
- Links on webpage



**Put What You Learned
Into Practice**

Create Your Own Omega-3 ALA Focused Content for a Chance to Win \$2,000



See the post-webinar email for full contest [rules and how to enter.](#)



1. Choose a patient/client population.
2. Select the best nutrition education content material that would effectively engage your population.
3. Design the content highlighting the latest research and facts.



Submit by **4/1/22** via email for a chance to win **one \$2,000 grand prize** winner and **two \$1,000 runner's up prizes**. Winners be selected and announced on or around **4/12/22**.

Missed the live webinar?
You can still participate. View the recording and enter by 4/1/22.

Continue to Learn

Visit walnuts.org for unique [recipe](#) inspiration, the latest [health research](#) information, and additional [education materials](#).

Subscribe to [The Quarterly Bite Newsletter](#), featuring new scientific research on walnuts, educational resources, and a variety of nutritious recipes and inspiration for your clients.

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OMEGA-3 RD

- "Making Sense of Omega-3s: The Good Fats"
- <https://gretchenvannice.com/>

RD2RD

- @rd2rd_marketplace on Instagram
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STREET SMART NUTRITION

- @streetsmart.rd on social media
- <https://streetsmartnutrition.com/>
- "Healthy Eating for Life" (Intuitive Eating Workbook)



+

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CULTURAL FOOD TRADITIONS

Thank you for joining us today!

Do you have any questions?