

## Nutrition Overview: Part I

Integrative Health emphasizes mindful awareness and self-care, in addition to excellent professional care by a skilled team. The Circle of Health highlights that Nutrition is one of several important aspects of self-care, along with Surroundings, Personal Development, Recharge, Spirit and Soul, Mind and Emotions, Physical Activity, and Family Friends, and Co-workers.

An Integrative Health approach to nutrition also incorporates complementary and integrative approaches to prevent or improve acute and chronic symptoms related to cardiovascular disease, diabetes, gastrointestinal diseases, mental health, and chronic pain. Nutrition is a vast area, and while this overview cannot cover every option a person can consider, it provides a starting place, building on the material provided in Chapter 8 of the [Passport to Whole Health](#). Whether someone chooses to add in a food or food group, remove something from their diet, or change a behavior, focusing on nutrition can have a profound impact on health. The narrative below shows what a Integrative Health visit could look like and how to apply the latest research on dietary recommendations.

### Key Points

- The Standard American Diet (SAD) does not provide us with optimal nutrients. Poor eating habits associated with this diet have a profound impact on our health.
- Clinicians should individualize care to meet people where they are at; even small changes can lead to good results.
- People often are put off by the word “diet.” This overview focuses on a number of “eating plans” that are popularly followed, noting pros and cons for several of them. Remember, a plan is more likely to succeed if a person persists; tying in the benefits of healthy eating to what really matters to a person can be extremely helpful. Be cautious when it comes to fad diets.
- Enlist the assistance of dietitians as part of the Integrative Health care team. They can be an incredible resource.
- When it comes to food safety, pay attention to the Dirty Dozen™ and Clean 15™ guidelines on the [Environmental Working Group](#) website.

### Meet the patient: Erin

*“The food you eat can be the safest and most powerful form of medicine or the slowest form of poison.” –Ann Wigmore*

Erin is a 35-year-old mother of two. Currently, she is overweight, with a body mass index (BMI) of 29. She often feels tired, struggles with constipation, and has some symptoms of gastritis. She also notes frequent migraines and chronic sinus infections. Erin does not have diabetes, but her doctor is concerned because her fasting glucose is elevated, and she has a strong family history of type 2 diabetes.

During a recent visit, Erin completed a Brief Personal Health Inventory (PHI). Her care team members reviewed it and noted several areas of concern, positivity, and interest.

## Erin's PHI

During a subsequent visit, Erin provided some information about her diet. Most mornings, she has a bagel or granola bar for breakfast. For lunch, she has leftovers from dinner the night before. Her afternoon snack is usually chips or popcorn. She eats out with her family 3-4 times each week, and she usually chooses a fast food option. She and her children enjoy vegetables, but they only eat a few servings per week. When her family eats at home, they usually eat while watching television. Erin tries to drink mainly water and now avoids beer to cut down on calories. Her teenage son enjoys fruit drinks, so she always stocks the refrigerator with them.

Erin knows she needs to make healthier dietary choices, but she does not know how to go about it. She has the following questions and concerns:

- What is the best diet for me to follow? Should I follow a low-fat diet?
- What is fiber, and why is it good for me?
- What are some good options for protein?
- Eating healthy costs too much, and I am not sure I can afford it. Any suggestions?
- Juice is high in calories, but it is healthy, right, since it comes from fruit?
- Water is boring; are there other things to drink that are good for me?
- Sometimes I eat when I am bored or sad, and I know it is not a good way to deal with my feelings, but it makes me feel better. Any ideas?
- How do I eat well but still feel satisfied? I hate dieting because I always feel like I am starving.
- Should I take a multivitamin?
- What minerals do I really need?

## **Nutrition: An Unpalatable State of Affairs**

In American adults aged 20-39 years, 40% are obese. This is true for 45% of adults aged 40-59 and 43% over age 60.<sup>1</sup> A 2017 *Journal of the American Medical Association* study concluded that, in 2012, at least 45.4% of all deaths from heart disease, stroke, and diabetes were ultimately caused by poor diet.<sup>2</sup> The prevalence of overweight and obesity increases every year,<sup>3</sup> and the number of people dying due to poor dietary choices is climbing.<sup>4</sup>

What can be done about the epidemic of unhealthy eating? Many people look to their physicians or other clinicians for nutritional guidance. Little do they know, most clinicians receive limited—even negligible—nutrition training. According to a 2015 survey of 121 medical schools, 71% of schools fail to provide the required 25 hours of nutrition education over 4 years, and 36% of these schools did not provide half that amount.<sup>4</sup> Even more disappointing, courses often lack clinically relevant information that can be applied to patient care. Rather than reviewing research on how to eat well, much of the nutrition curriculum for health professions focuses on biochemistry.

Many patients feel that Nutrition is an important area of focus for a Personal Health Plan. In fact, many of us tend to fixate on it, even while struggling unsuccessfully with making good dietary choices. Most people know what they should or should not eat. However, they also have a difficult time changing their behaviors in accordance with that knowledge.

As clinicians, the so-called Standard American Diet (SAD) is our nemesis. Erin's family's diet is an example of a SAD; it is not a healthy way to eat. The SAD is characterized by the following:<sup>5</sup>

- Excessive calorie intake
- Too many refined carbohydrates
- High consumption of fatty meats
- Unhealthy levels of added fats
- Limited intake of nutrient-dense foods such as whole grains, fruits, and vegetables

## What To Do?

The purpose of this overview and its related Integrative Health tools is to provide practical information about nutrition to guide both your own food choices and the nutrition suggestions you offer to your patients. Even if you are pressed for time, it can be beneficial to suggest at least one or two of the nutrition tips offered in this overview during an Integrative Health visit. It only takes a few moments, and you can always provide patients with written information that they can review in more detail after their visit. Additionally, you can refer patients to a registered dietitian who can provide in-depth recommendations.

Figure 1 illustrates subtopics within the self-care area of Nutrition that can narrow down options people can consider if they want to build part of their personal health plan in this area. Note the "Make One Small Change" circle, which leaves room for creativity in any area the patient and clinician prefer. Also note the circle that emphasizes "Work with a Dietitian," acknowledging that they can be an important resource as patients create a personalized nutrition plan.



Figure 5. Subtopics within the Nutrition Circle of Self-Care

Patients are more likely to follow nutrition recommendations if they hear them directly from a clinician and if clinicians can speak to following those recommendations themselves

In 2000, physicians at Emory University set out to prove just how important clinicians' personal and professional endorsements of nutrition are to their patients. To conduct this experiment, patients in a clinic waiting room viewed one of two similar videos of the same physician providing advice on nutrition and fitness. The only difference between the videos was that that in one, the clinician providing advice wore a bicycle helmet, placed an apple on her desk, and spoke for an additional thirty seconds about her own healthy habits, while these elements were absent in the other. Not surprisingly, the patients who viewed the former version deemed the physician healthier, more motivating, and more believable than the patients who viewed the latter video.<sup>6</sup>

Similarly, a 2009 study found that when a physician endorsed specific nutrition education materials during a visit, patients were much more likely to remember the materials, show them to others, and feel that the recommendations were specific to them as individuals, compared to controls who received the materials without any discussion during the visit (OR = 1.35, 95% CI = 1.00-1.84).<sup>7</sup> This was true when physicians made a point of endorsing other healthy lifestyle

behaviors as well, including increasing exercise and quitting smoking. Another study showed that if a clinician weighed more than an overweight patient, he or she initiated a conversation about weight loss 11% of the time. However, if a clinician weighed less than an overweight patient, he or she discussed weight loss with the patient 89% of the time.<sup>8</sup> Thus, our habits matter to our patient, and if we practice what we preach, we can make a great impact on patients' lives.

## How can weight loss make a difference?

Multiple studies have measured the impact of small reductions in weight. Make your patients aware of the changes their body undergoes with weight loss. Below is a chart summarizing some of these changes.<sup>9</sup>

**Table 2. Health benefits of a 10kg weight loss for those who are obese**

Condition	Benefits
Mortality	20-25% fall in total mortality 30-40% fall in diabetes deaths 40-50% fall in obesity related cancer deaths
Blood Pressure	Fall of 10 mmHg systolic pressure Fall of 20 mmHg diastolic pressure
Lipids	Fall by 10% in total cholesterol Fall by 15% in "bad" cholesterol Fall by 30% in triglycerides Increase by 8% in "good" cholesterol
Angina	Reduced symptoms by 91% 33% increase in exercise tolerance
Diabetes	Fall of 30-50% in fasting blood glucose Reduces risk of developing diabetes by more than 50%

Highlight the number of medical conditions associated with obesity, but make sure to frame the discussion in a positive way. Explain that by losing weight, you can reduce your risk of developing many health problems. It is important to make it clear that a "normal" weight does not necessarily equate to having a healthy, nutrient-rich diet, nor does being obese necessarily mean a person lacks nutrients or eats unhealthy foods. Most dietitians agree that it is important to look beyond just numbers of calories. Explore this in greater depth as appropriate, on an individualized basis.

Below is one image that illustrates the risk associated with obesity.

## Medical Complications of Obesity

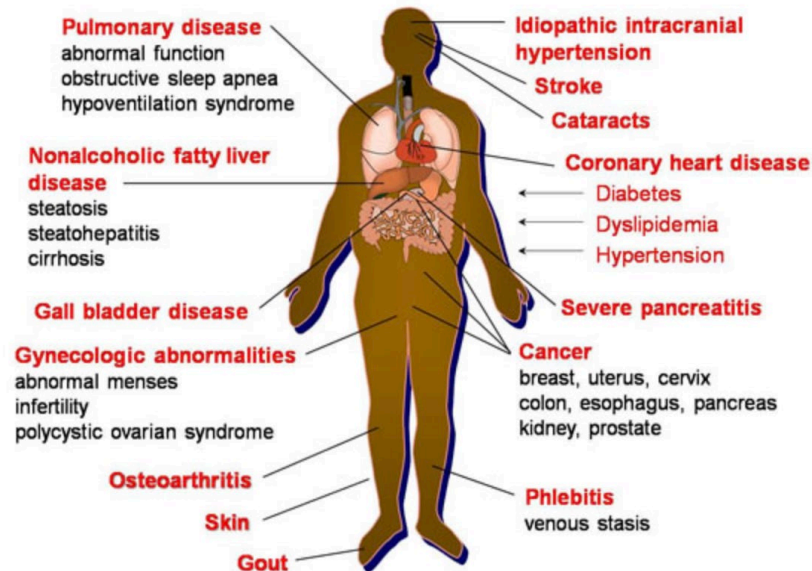


Figure 6: Medical complications of obesity. Copyright pending. Image from: [http://www.asyouage.com/19\\_Medical\\_Complications\\_of\\_Obesity.html](http://www.asyouage.com/19_Medical_Complications_of_Obesity.html)

A common mistake that many of us make is to tell ourselves we can work off the calories we consume—that we can out-exercise a poor diet. While physical activity is an essential component of weight loss, exercise cannot make up for a lack of healthy nutrients in the diet. The impact of poor dietary choices on our weight is very difficult to overcome through exercise when not also combined with healthier eating. The image below derives from a calculator that determines how much exercise will burn off calories from a common fast food meal. For example, ordering an Italian sub sandwich from Subway, potato chips, and chocolate chip cookies, requires riding a bicycle for 5 hours, dancing for 5 hours, or running for 3 hours to burn the calories from that meal.

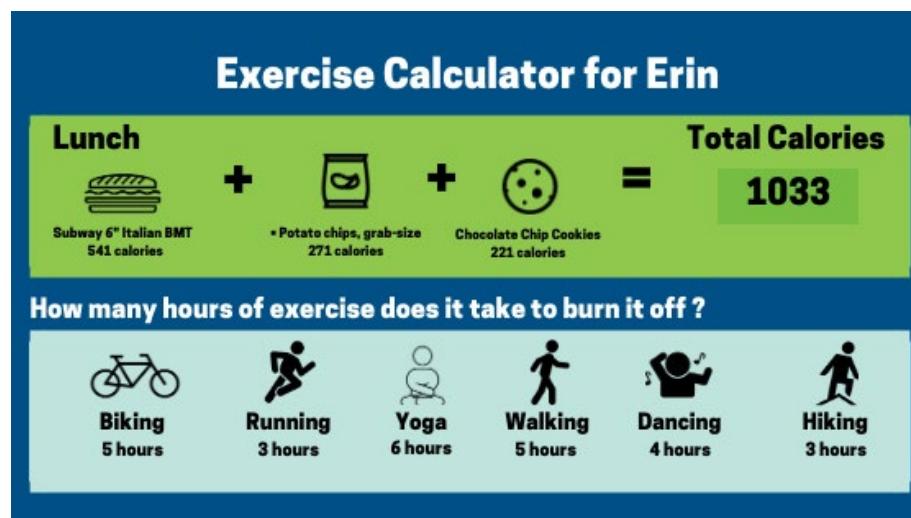


Figure 7. Calories burned through activities compared to calories ingested with fast food

Below are some resources to help patients calculate calorie intake:

1. [Nutribody](#)
2. [Calorie King](#)
3. [MyFitnessPal](#)
4. [MyPlate](#)
5. [Lose It!](#)

Finally, emphasize that the patient's weight is not a permanent state of being but constantly in flux, and the best way to stabilize this process is through achievable healthy habits. Use motivational interviewing techniques to encourage these habits.

## Author(s)

This "Nutrition Overview Part 1" was adapted for the University of Wisconsin Integrative Health Program from the original written by Samantha Sharp, MD and updated by Sagar Shaw, MD with additional updates Shari Pollack, MD. (2014, updated 2020). Modified for the UW Integrative Health website in 2020 by Adam Rindfleisch, MD.

*This overview was made possible through a collaborative effort between the University of Wisconsin Integrative Health Program, VA Office of Patient Centered Care and Cultural Transformation, and Pacific Institute for Research and Evaluation.*

## References

1. Centers for Disease Control and Prevention. Adult Obesity Facts. <https://www.cdc.gov/obesity/data/adult.html>. Accessed December 21, 2020.
2. Micha R, Shulkin ML, Peñalvo JL, et al. Etiologic effects and optimal intakes of foods and nutrients for risk of cardiovascular diseases and diabetes: Systematic reviews and meta-analyses from the Nutrition and Chronic Diseases Expert Group (NutriCoDE). *PLoS One*. 2017;12(4):e0175149.
3. Arroyo-Johnson C, Mincey KD. Obesity epidemiology worldwide. *Gastroenterol Clin North Am*. 2016;45(4):571-579.



4. Hruby A, Manson JE, Qi L, et al. Determinants and consequences of obesity. *Am J Public Health*. 2016;106(9):1656-1662.
5. Grotto D, Zied E. The Standard American Diet and its relationship to the health status of Americans. *Nutr Clin Pract*. 2010;25(6):603-612.
6. Frank E, Breyan J, Elon L. Physician disclosure of healthy personal behaviors improves credibility and ability to motivate. *Arch Fam Med*. 2000;9(3):287-290.
7. Kreuter MW, Chheda SG, Bull FC. How does physician advice influence patient behavior? Evidence for a priming effect. *Arch Fam Med*. 2000;9(5):426-433.
8. Bleich SN, Bennett WL, Gudzone KA, Cooper LA. Impact of physician BMI on obesity care and beliefs. *Obesity (Silver Spring, Md)*. 2012;20(5):999-1005.
9. Jung RT. Obesity as a disease. *Br Med Bull*. 1997;53(2):307-321.