

Mindful Eating in Nutrition Counseling for Eating Behaviors: What Research Suggests **By Marsha Hudnall, MS, RDN, CD**

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In this age of food abundance, concerns about eating well for many people have shifted from not getting enough food to eating too much as well as to the quality of what is eaten. Statistics from the Centers for Disease Control and Prevention suggest that, according to BMI, more than two out of three adults in the United States can be classified as overweight or obese.¹ Although BMI is widely acknowledged as an inadequate measure of individual health, it provides insight into population trends in terms of body size.² Putting aside debates about the true health impact of overweight and obesity, larger body sizes are viewed as undesirable culturally; this has led to a proliferation of approaches to reduce weight.

Although specific recommendations vary, healthful eating is generally considered fundamental to success at achieving and maintaining health; this supports body weight regulation. Because of the popularity of weight loss diets and the conflation of body size with health, however, many may confuse healthful eating with following diet rules. Traditional approaches to healthful eating, then, often involve restrictive eating, labeling foods as good or bad, and dictating how much and when to eat.

When it comes to body weight, research shows not only that restrictive eating does not result in reduced weight in the long term but also that the vast majority of people who intentionally try to lose weight end up regaining lost weight. Further, as many as two-thirds of those ultimately regain more weight than they lost.^{3,4} It is legitimate, then, to ask whether such an approach also works for those who believe they do not diet but, in the interest of eating well, interpret healthful eating according to diet rules.

In recent years, mindful eating has emerged as an alternative to help people achieve a more beneficial intake for the purposes of health in general as well as for supporting body weight regulation. Research discussed below suggests mindful eating holds great promise because it empowers people to make choices in their own best interest.

This continuing education course examines the meaning and practice of mindful eating and its benefits in relation to problematic eating behaviors that affect many people. It also explores the potential value to RDs of adopting a mindful eating approach to better support clients.

The Limitations of Restrictive Eating

For a variety of reasons, restrictive eating for the purpose of weight loss does not work for the majority of people. First, it utilizes external cues to implement a prescriptive approach to eating that may not meet individual needs. It teaches people to disregard internal cues from the

appetite regulatory system, which guide individuals in eating for well being.⁵ That system involves a complex interplay of hormones that are released and suppressed in response to hunger and the ingestion of food. It may also be affected by judgmental attitudes about eating and food that can create stress as individuals waver between wanting a food and believing it's not supportive of their goals.⁶

People who restrict their eating often undereat because the calorie intake specified by a weight loss diet may be inadequate to meet needs. Levels of the hunger hormone ghrelin continue to rise the longer a person does not meet energy needs, leading to more intense degrees of hunger.⁷ Eventually, in response to intense hunger, these individuals will break the diet by eating more than it allows.

In response to intense hunger, people may also eat more quickly, thereby allowing inadequate time for hormones that signal satiety to be produced and have their intended effect.⁸ As a result, a person may eat beyond physical needs before they realize it. After eating in this manner, a person will typically feel overfull.

At that point, psychological issues, which ultimately may have a more powerful impact, may also come into play—even for those who do not undereat on a regular basis.⁹ Feelings of failure or guilt frequently arise in those who eat more than they think they should, especially those who are concerned about their weight. This can lead to emotional overeating, in the moment and in the long term. A variety of cognitive distortions may be involved, including the following, observed by the author in her work with a higher weight population for more than 30 years:

- **All-or-nothing thinking** occurs when a restrictive eater swings from one extreme to the other, from diet rules that do not meet individual needs to eating with abandon because the person cannot follow the rules.
- **Last chance thinking** occurs when, after breaking diet rules, a person decides to eat what and as much as they want, anticipating that they will start the diet again the next day. They eat to get their fill of what they want before they begin limiting their eating again.
- **Good food, bad food thinking** labels certain foods as off limits, typically richer foods that contribute more calories, sugar, fat, and/or salt to the diet compared with other foods. The fallout from classifying foods in this way is that it can make them more appealing. When people fail to follow diet rules, the previous thinking errors can combine with this one to result in overconsumption of richer foods.
- **“Should” statements** often reflect the adoption of diet rules as the definition of healthful eating (eg, “I should eat X if I want to be healthy”). “Should” statements can lead to feelings of failure if a person eats foods not allowed on the diet. That can bring all-or-nothing thinking into play, driving emotional overeating in the long run.

The entire process repeated over time may create an unhealthy relationship with food and eating; individuals begin to fear food because they believe they cannot eat without overeating. This undermines their ability to make supportive eating choices.

In the short term, most diets will result in weight loss; this leads many to believe that diet rules do work. However, as acknowledged by the National Institutes of Health, it is clear that weight loss diets do not work for the vast majority of people, as most regain all weight lost within five years.¹⁰ As mentioned previously, in a review of long-term outcomes of weight loss diets, Mann and colleagues found that the vast majority of dieters regain weight lost, and one-third to two-thirds of those gain more than they lost.³ As Americans fear and struggle with weight gain, it is valid to question whether the attitudes and behaviors learned through restrictive eating are at the root of the problem.

What Is Mindful Eating?

Mindful eating offers a way to help clients move away from restrictive eating by relearning how to listen to and respond intelligently to internal cues from the appetite regulatory system. It's an outgrowth of the practice of mindfulness.

According to the Merriam-Webster online dictionary, mindfulness is defined as “the practice of maintaining a nonjudgmental state of heightened or complete awareness of one's thoughts, emotions, or experiences on a moment-to-moment basis.”¹¹ This is often described as acceptance and is key to helping a restrictive eater move away from the thinking errors described above.

Definitions of mindfulness were likely influenced by the work of Jon Kabat-Zinn, PhD, a leader in promoting the practice of mindfulness as well as spreading awareness of its benefits for stress reduction.¹² Kabat-Zinn defines mindfulness as “awareness that arises from paying attention, on purpose, in the present moment, nonjudgmentally.”¹³

Kabat-Zinn also popularized the idea of mindful eating with his “raisin consciousness” exercise, commonly used to create awareness of and attention to aspects of eating.¹⁴ Walker and Rutledge describe in the book *The Healing Circle* how Kabat-Zinn initially used the raisin exercise to “give people a sensory experience of being mindful rather than just talking about it.”¹⁵ The exercise guides participants in a meditation on a raisin, helping them explore it with all their senses before, during, and after eating.¹⁶ “Eating one raisin very, very slowly allows you to drop right into the knowing in ways that are effortless, totally natural, and entirely beyond words and thinking. Such an exercise delivers wakefulness immediately,” Kabat-Zinn explains.¹⁷ By using this exercise with a raisin or other foods such as chocolate that may challenge the client in eating without overeating, RDs can help clients gain awareness of their thoughts about a particular food and their experience of eating it; this can give them insight into the attitudes and behaviors that drive their eating behaviors. Examples of additional mindful eating exercises are found in the patient handout, “Experimenting With Mindful Eating,” which accompanies this course.

The Center for Mindful Eating (TCME), a nonprofit forum for professionals working to develop, deepen, and expand understanding of the value and importance of mindful eating, lists on its website [basic principles of mindfulness and mindful eating](#).¹⁸ These principles underscore the need to pay attention, without judgment, while eating, to observe physical reactions as well as thoughts and feelings that may arise—to move away from habitual patterns and better employ inner wisdom to guide eating behaviors. TCME also suggests that the practice of mindful

eating is larger than the eating process itself; it involves how a person views food in the context of health, vitality, and emotional well-being.

TCME further states that a person who eats mindfully acknowledges the individuality of the eating experience. There is no right or wrong way to eat, but when eating mindfully, a person maintains awareness to make choices that support themselves as well as others by considering factors such as the impact of food choices on the environment.

Mindful eating is also commonly used as an integral component of a nondiet approach to health and body weight regulation. The nondiet approach was developed by Thelma Waylor, RD, and others in the 1970s to oppose restrictive eating methods to control weight.¹⁹ The nondiet approach depends on the body's natural homeostatic drive for health, which produces hormonally controlled internal cues to guide eating, as discussed above. The nondiet approach also involves self and size acceptance to promote effective self care.

Other Awareness-Based Approaches

Several other terms have emerged to describe the process of listening to the body for guidance in eating and may often be used interchangeably with the term "mindful eating." It is of value to understand the nuances surrounding the terms to grasp different issues that are often at play when counseling clients.

Attuned Eating and Intuitive Eating

Attuned eating and intuitive eating are terms commonly used interchangeably with mindful eating. They both emphasize eating according to internal cues for hunger and satiety. The premise is that by becoming aware of internal cues, individuals can better determine what they need in the moment.

In the 1990s, Tribole and Resch created a specific model utilizing intuitive eating. The model lists [10 core principles](#) that are in agreement with the mindful eating approach. The model has been validated by [research](#) that shows an association with less disordered eating, improved body image, improved blood glucose control, lower BMIs, and more.²⁰

Structured Eating and Competent Eating

Structured eating is a method that provides more guidance in the form of a foundational plan for clients who do not recognize or trust internal cues for eating. It is commonly used in recovery from chronic dieting and/or an eating disorder.²¹ Generally it features the practice of eating balanced meals on a schedule (approximately every three to five hours) while tuning into internal cues to begin to reconnect with and trust them. A hunger and satiety scale is often used to guide clients in understanding internal cues and practice using them to guide when to start and stop eating (see Figure 1).

FIGURE 1

Hunger and Satisfaction Scale

Use this scale to tune into feelings of hunger and satisfaction. Each person may feel differently at each level; these descriptions are just suggestions. Feel free to use your own language and experience to describe how you feel at each level.

Scale: 1–10

1–2: Too hungry: headache, dizzy, nauseous, irritable, shaky, low energy

3–4: Hungry: empty, thoughts turn to food, hunger pangs, growling stomach

5: Neutral: no longer hungry but not quite satisfied

6–7: Satisfied: pace of eating slows, feeling of well-being

8–10: Too full: ranges from uncomfortably to painfully full, even nauseated.

— SOURCE: GREEN MOUNTAIN AT FOX RUN

The ecSatter competent eating model, designed by Ellyn Satter, MS, RDN, MSSW, incorporates a structured eating approach and has been described and validated in the scientific literature.^{22,23} It also involves counseling regarding judgmental attitudes and weight loss diet practices to help clients move beyond the negative relationship with food and eating that many have developed through restrictive eating approaches. Research shows that the competent eating model supports improved nutrition, weight regulation, and healthful levels of medical parameters, such as blood lipids and blood pressure, as well as emotional health.²⁴

Psychological Theories and Therapies Used in Mindfulness

The power of mindfulness and mindful eating is supported by the self-determination theory (SDT) developed by Edward L. Deci, PhD, professor in the department of clinical and social sciences in psychology at the University of Rochester, and Richard M. Ryan, PhD, a clinical psychologist and professor at the Institute for Positive Psychology and Education at the Australian Catholic University in Sydney, Australia.

SDT posits that sustained motivation derives from supporting “intrinsic tendencies to behave in effective and healthy ways.”²⁵ That is, SDT suggests that humans are motivated from within to behave in ways that support their well-being. Yet extrinsic factors, such as cultural values, can support or undermine intrinsic motivation.

The undermining of intrinsic motivation can be clearly seen in the conflicting dynamics of restrictive eating. People generally undertake weight loss diets to improve well-being, either to reduce culturally-supported weight stigma or to improve their health because they believe body size is an indicator of health. Yet diet rules often conflict with what a person likes or wants to eat. Teixeira et al assert that long-term motivation is closely aligned with the degree to which “people perceive a sense of choice, find well-grounded meaning and feel volitional (ie, make a conscious decision or choice) in their pursuits.”²⁶ Interventions such as mindful eating promote a sense of autonomy over eating and connect choices with values as well as experiences of eating.

Functional magnetic resonance imaging research also shows mindfulness is associated with reduced bilateral amygdala (primitive brain) response and greater prefrontal cortical activation (regulating cognitive, emotional, and behavioral functioning) in the presence of threatening emotional stimuli.²⁷ This suggests mindfulness helps increase emotional self-regulation through a direct effect on the brain.

A variety of psychological-based programs incorporating mindfulness^{28,29} can help a person better recognize and respond to emotions effectively. These include programs such as Kabat-Zinn’s Mindfulness-Based Stress Reduction and the adaptation of Mindfulness-Based Cognitive Therapy, as well as Mindful Self-Compassion developed by Kristin Neff, PhD, and Christopher Germer, PhD. Knowledge of these programs can be useful to RDs who want to help clients develop further their strategies for promoting self care.

Traditional psychotherapeutic approaches that utilize mindfulness include dialectical behavior therapy (DBT) and acceptance and commitment therapy (ACT). Developed by Marsha Linehan, PhD, DBT is a therapy used to help those who have significant difficulty in managing emotions. Mindfulness is incorporated as a way to help patients manage their thoughts, which drive emotions.³⁰ ACT uses mindfulness to promote positive behavior change through internal motivation by helping clients clarify their values. In so doing, they can better identify behavior change consistent with those values and then make choices that are more supportive of achieving the desired change.³¹

The Benefits of Mindful Eating

In the wake of the interest in effective methods to address body weight and the failure of restrictive eating approaches in that regard, one of the more widely investigated areas in mindfulness and mindful eating has centered on the impact on body weight. Researchers have studied potential mechanisms and outcomes, including the impact on eating behaviors including eating disorders. An extensive [bibliography of research articles](#) that examine mindful eating can be found on The Center for Mindful Eating website.³²

Impact on Eating Behavior

Specifically, the impact of mindfulness on the development of food preferences and on eating behaviors, such as the amount of food consumed in response to food cravings, has been explored. Working with overweight and obese adults, Alberts et al examined whether mindfulness-based strategies had a positive effect on clients’ reaction to food cravings. The research consisted of a seven-session mindfulness-based intervention to increase acceptance

skills. Specific sessions focused on use of the “body scan,” a meditation technique with which attention is brought to each area of the body, starting with the toes and moving up to the head. Previous research shows the body scan helps increase awareness and acceptance of internal cues involving hunger and appetite, including cravings.³³ Other sessions involved meditations to increase awareness and acceptance of thoughts associated with food and eating, in which participants were instructed to accept whatever thoughts arise without judgment. The final sessions combined practicing awareness and acceptance of bodily sensations and thoughts related to cravings. The focus of the treatment was to explore the impact of acceptance of bodily sensations and thoughts that arise in concert with food cravings, with the goal of decreasing automatic behaviors that may arise in response to cravings. The study showed that participants receiving the mindfulness-based training reported significantly fewer food cravings. It also demonstrated that acceptance decreased feelings of loss of control in response to food cues.³³

In a follow-up study, Alberts et al showed that participants in a mindfulness-based intervention experienced significantly greater decreases in food cravings, body image concern, and emotional eating as compared with a nontreatment control group. The intervention combined the practice of mindful eating with awareness and acceptance of sensations, thoughts, and feelings related to eating and body. It also introduced awareness and progressive change of daily patterns and habits related to eating and physical activity. The researchers speculated that increased awareness of sensations, thoughts, and feelings related to eating, body, and automatic patterns associated with eating and emotion regulation, as well as self-acceptance, may work to reduce problematic eating behavior.³⁴

Mindful eating was also negatively associated with serving sizes of energy-dense foods in a study of 171 adults.³⁵ The study showed that people who eat mindfully as assessed by the Mindful Eating Questionnaire (MEQ)³⁶ were less likely to report eating in response to negative emotions and were more likely to engage in disinhibited or compulsive eating. They were more likely to forgo eating readily available energy-dense foods such as ice cream and less likely to snack without noticing.

Research also suggests a positive effect of mindfulness on the nutritional quality of food choices. Across four studies, Jordan et al found a causal effect of mindfulness on more healthful eating, with preliminary evidence of increased preferences for healthful foods.³⁷ Another study demonstrated that more mindful people have stronger preferences for fruits over sweets than do less mindful people, a finding that is consistent with statements from other researchers that mindful eating decreases the appeal of less health-supportive foods.³⁸ Further research is warranted to illuminate the benefits of mindful eating on nutrient intake.

Finally, a frequent approach to managing eating behaviors is to improve competence in the ability to self-regulate emotional states without the use of food. For example, dieters commonly experience increased anxiety and depression, which may contribute to emotional overeating. A review of 39 studies involving a total of 1,140 participants showed mindfulness to be a promising therapy to help alleviate those emotional states.³⁹

Impact on Body Weight

Research on the impact of mindfulness on body weight is confounded by a number of factors, including the fact that many treatments that have been studied combine mindfulness with traditional weight management treatment methods such as cognitive behavioral therapy and energy balance awareness. So results must be considered in that light. Any weight loss seen may be due to traditional therapies, and longer-term studies are needed to assess whether mindfulness can affect success in maintaining weight loss achieved by these methods.

Further, most studies are small–sample size, short-term interventions, some as brief as five to six weeks. Because five-year results represent more of a gold standard in terms of efficacy, more research is needed in this area. However, in the interest of discovering treatments that may play a role in the achievement and maintenance of an individual's natural healthful weight, as opposed to intentional weight loss treatments that often cause weight gain, this is an important area to continue exploring. In particular, research on the impact of mindfulness on weight cycling and the prevention of undesirable weight gain as well as studies of mindful eating approaches that focus on health instead of weight loss as an outcome may be helpful.

One of the more widely quoted studies in this area is a 2015 review of 19 studies, including 13 randomized controlled trials (RCT) and six observational studies, that evaluated the effect of mindfulness and mindful eating on weight.⁴⁰ It showed that in 13 of the studies reviewed, significant weight loss was seen in participants taking part in mindfulness interventions. Among the eight RCTs published in the scientific literature, six showed that study subjects who were trained in mindfulness experienced significant weight loss. One RCT found no significant change in body weight. One neglected to report BMI at the end of the program.⁴⁰

However, only three of the RCTs and three of the dissertations showed significant weight loss as well as significant improvement in mindfulness. Further, the relationship between change in weight and change in mindfulness was not evaluated. As many of the studies reviewed included psychoeducational components, eg, education regarding nutrition and exercise and self-monitoring of behaviors along with mindfulness training, attribution of the weight loss is unclear. And importantly, the studies reviewed were between 10 weeks and six months in length, so long-term data are needed in order to draw more definite conclusions.

In that same vein, a 2014 review of 14 studies evaluating the impact of mindfulness training on binge eating, emotional eating, or weight found mixed effects on weight.⁴¹ Out of the 10 studies that measured weight as an outcome, six also included education on nutrition or supplemental behavioral strategies such as instruction on energy balance or exercise. The authors speculate the focus on behavioral strategies may have accounted for any positive effect on weight seen in studies that included it.

Looking at eating behaviors that may affect weight, a 2014 review of 21 studies assessed the impact of interventions that included mindfulness training on binge eating, emotional eating, and eating according to external guidelines. It found that 18 of the 21 studies reported improvements in these eating behaviors. As these behaviors are often seen in individuals who struggle with weight, the authors concluded that the results of this first review supported “the

efficacy of [mindfulness-based interventions] for changing obesity-related eating behaviors, specifically binge eating, emotional eating, and external eating.”⁴²

Effect on Eating Disorder Symptomatology

More research also suggests the potential for significant effect of mindfulness and mindful eating on eating disorder symptomatology. One randomized clinical trial showed that a 12-session mindfulness-based eating awareness training (MB-EAT) of 150 men and women was effective in reducing binge eating and related symptoms at a clinically meaningful level. Compared with a control group, 95% of MB-EAT participants with binge eating no longer met criteria for the disorder at four months postintervention.⁴³ In a study of 44 women with binge eating disorder, Anderson also showed a 10-week mindfulness-based treatment based on the SDT significantly reduced binge eating behaviors and comorbid psychiatric conditions and increased positive health behaviors one year posttreatment.⁴⁴ Working with six college-aged women with bulimia nervosa in an eight-week mindfulness-based eating disorder treatment group, Proulx found less emotional distress and improved ability to manage stress. Participants reported a better ability to avoid emotional and behavioral extremes while cultivating greater self-awareness, acceptance, and compassion. Proulx speculated that the treatment could help the 40% of women for whom current therapies do not work and may also help prevent the development of bulimia nervosa in younger women.⁴⁵

It’s important for nutrition therapists to understand, however, that “nutrition rehabilitation” may be required for many individuals with eating disorders before they can begin to eat mindfully.²¹ This involves prescribed eating plans implemented under the direction of a nutrition therapist to help restore homeostasis so that internal cues work properly. The structure of a prescribed eating plan may also provide safety as individuals with eating disorders work through emotional issues that may be involved in the development of the disorder.

The Rationale for Using Mindful Eating in Nutrition Counseling

By definition, mindful eating is a client-based, self-guided approach to eating, so when promoting mindful eating, the role of the RD shifts from a traditional one of defining eating plans to a more supportive role that incorporates knowledge-based guidance and encouragement. The RD’s role is to aid clients in their discovery of individual needs regarding food and eating on both a physiological and psychological basis, gained through increased awareness of thoughts, emotions, and physical sensations surrounding eating.

Motivational interviewing techniques are considered key to this mode of counseling, and supporting autonomy is a key element underlying the effectiveness of motivational interviewing.⁴⁶ Autonomous eating regulation is associated with being concerned with what one eats (ie, food quality), whereas restrictive eating is associated with being concerned with how much one eats (ie, food quantity).⁴⁷

Incorporating mindful eating approaches into dietetic practices, therefore, requires a commitment to guiding clients to become more aware of and respond intelligently to their own internal wisdom, in the form of internal cues for eating, as well as to connect with emotions that drive overeating. This helps empower clients to make supportive decisions about what they need in the moment and long term. It requires that individuals gain awareness of foods that are

both satisfying as well as nourishing to their bodies. It also requires that they gain an understanding of their learned attitudes about food that may affect decisions, with the goal of adopting a neutral, nonjudgmental attitude so that choices ultimately can be based on how they make the individuals feel both physically and psychologically.

Questions RDs may want to explore with clients when teaching mindful eating include: Are they avoiding foods they want to eat because they worry about calories or that the food isn't "healthful" but then end up overeating those foods out of feelings of deprivation? Do the clients enjoy the foods they choose to eat and also feel well after eating? Or do they have negative physical reactions to the food after the meal/snack? Do they feel satisfied and energized when the meal ends, or do they feel lethargic because of what they ate, the nutritional balance of their choices, or the amount? These questions can help clients understand how foods, eating patterns, or beliefs about foods make them feel so that they are better able to make choices that support them in feeling well.

A mindful eating approach also can help clients become more aware of the ways they use food for emotional reasons and move beyond ingrained eating habits. Questions to explore include the following: When the urge rises to reach for food in the face of emotional turmoil, is physical hunger involved in the desire to eat? If not, does the food really address the problem? If not, with the full nonjudgmental knowledge that it is their choice whether they want to eat in reaction to the emotion, do they want to stop and think about what might best help them in this moment? Mindful eating can support change via a neutral, nonjudgmental attitude about food and eating that can increase rational decision-making about what is truly needed in the moment.

It's worth noting that trauma often underlies the development of eating disorders.^{48,49} For example, people who binge eat often eat to numb out and thereby avoid dealing with thoughts and feelings that arise from past trauma. By increasing awareness, mindful eating runs counter to the function that binge eating commonly serves, potentially exposing these individuals to the traumatic thoughts and feelings. RDs must take care to avoid opening old wounds without appropriate support. When to address the wounds of trauma is best determined and managed with a team approach consisting minimally of a dietitian and psychological therapist for binge eating disorder. A psychiatrist is also often an important part of the team.

It's also important for RDs to understand the bigger meaning of mindfulness so they can successfully teach the practice of mindful eating within the client setting. In its [Good Practice Guidelines](#), TCME recommends that all teachers of mindful eating maintain a regular meditation practice in order to cultivate awareness of emotional and physical needs. Nonjudgment is central to mindful eating, so those who successfully practice it must have the ability to accept where they are, at each moment—whether it be overly hungry, distracted by other responsibilities, embroiled in emotional upset, or living in a larger body that is subject to societal scorn—and then make decisions based on identified needs for that moment. If the focus of mindful eating is placed on achieving a specific goal such as weight loss, the question arises as to whether the change in focus will move individuals away from meeting needs in the moment. In the case of weight loss goals, it may interfere with intrinsic motivation and move an individual back toward restrictive eating.

Fostering a weight-neutral approach, ie, adopting mindful eating as a form of self-care rather than for weight loss, may also offer a better chance of improved health than do restrictive eating approaches. According to a 2011 paper by Bacon and Aphramor, a weight-neutral approach “is associated with statistically and clinically relevant improvements in physiological measures (eg, blood pressure, blood lipids), health behaviors (eg, eating and activity habits, dietary quality), and psychosocial outcomes (such as self-esteem and body image).”⁴ In contrast, a 2013 study showed that interventions focused on weight loss through dieting have minimal effect on improving health outcomes and any improvements seen are not correlated with weight loss.⁵⁰

This does not mean that mindful eating as opposed to a continued reliance on restrictive eating approaches to weight loss cannot serve as a basic practice for supporting weight regulation.

What Is a Natural Body Weight?

Acceptance is at the core of mindfulness. So when taking a mindfulness-based approach to body weight regulation, acceptance of natural body weight is key. A natural body weight is a range that is largely defined by genetics, which means diversity in body sizes is expected and normal.

Natural body weights can be supported by attitudes, policies, and behaviors that are best summed up by the Health at Every Size (HAES) principles. Often misunderstood, the HAES principles encourage a focus on supporting health regardless of a person’s current weight; they do not mean that a person is necessarily healthy at every weight.

With mindful eating, clients are engaged in making their own decisions about what, when, and how much to eat; this can reduce feelings of deprivation and rebellion against diet rules that often lead to overeating.⁵¹ Additionally, awareness of thoughts and feelings gained through mindfulness is thought to help decrease automatic behavioral responses associated with past experience or anticipated futures, such as undereating in response to weight stigma or overeating in response to feelings of deprivation.⁵² As mentioned previously, mindful eating has been shown to be effective in reducing binge eating, which is characterized by lack of awareness of thoughts and feelings and/or the desire to numb them. Finally, research shows that mindfulness-based eating practices help women better appreciate their bodies through acceptance, moving away from judgmental thoughts and thereby addressing the emotional impact of negative body image on eating and weight.⁵³

Ultimately, the promise of mindful eating extends far beyond the realm of body weight regulation and eating disorders. It has potential as an effective method to help clients utilize their internal systems that evolved to guide eating for well-being. More research is needed to confirm this as well to understand how best to help clients access their internal guidance systems, particularly in challenging environments that limit food choices or interfere with individual self-care.

By encouraging mindful eating practices, RDs can help clients adopt more effective methods for dietary change while helping them move away from restrictive eating approaches that generally do not help and may harm. Promoting mindful eating and thereby promoting a neutral, nonjudgmental attitude toward foods and client choices can also mediate the common perception of RDs as the “food police.”

—*Marsha Hudnall, MS, RDN, CD, is president and co-owner of Green Mountain at Fox Run, the women’s retreat for health and well-being in Vermont that pioneered the nondiet approach to health more than 40 years ago.*

[Click here for client handout, “Hunger and Satisfaction Scale.”](#)

[Click here for client handout, “Experimenting With Mindful Eating.”](#)

Additional Resources

[The Center for Mindful Eating \(TCME\)](#) regularly offers webinars and other materials to help health professionals learn more about mindful eating. Eating disorder organizations such as [the Binge Eating Disorder Association](#) also offer continuing education on mindful eating at annual conferences. Other resources include books on mindful eating by Megrette Fletcher, Med, RD, CDE, cofounder of TCME; Lynn Rossy, PhD; Susan Albers, PhD; and ***Intuitive Eating*** by Evelyn Tribole, RD, and Elyse Resch, RD. The University of California San Diego Center for Mindfulness also offers weeklong Mindful Eating—Conscious Living training workshops led by Jan Chozen Bays, MD, author of several books on mindful eating, and psychologist Char Wilkins, MSW, LCSW.

References

1. Overweight and obesity statistics. National Institute of Diabetes and Digestive and Kidney Diseases website. <http://www.niddk.nih.gov/health-information/health-statistics/Pages/overweight-obesity-statistics.aspx>. Published October 2012. Accessed November 15, 2015.
2. About adult BMI. Centers for Disease Control and Prevention website. http://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/#Used. Accessed November 15, 2015.

3. Mann T, Tomiyama AJ, Westling E, Lew AM, Samuels B, Chatman J. Medicare's search for effective obesity treatments: diets are not the answer. *Am Psychol*. 2007;62(3):220-233.
4. Bacon L, Aphramor L. Weight science: evaluating the evidence for a paradigm shift. *Nutr J*. 2011;10:9.
5. Austin J, Marks D. Hormonal regulators of appetite. *Int J Pediatr Endocrinol*. 2009;2009:141753.
6. Adam TC, Eppel, ES. Stress, eating and the reward system. *Physiol Behav*. 2007;91(4):449-458.
7. Sumithran P, Prendergast LA, Delbridge E, et al. Long-term persistence of hormonal adaptations to weight loss. *N Engl J Med*. 2011;365(17):1597-1604.
8. Tribole E, Resch E. *Intuitive Eating: A Revolutionary Program That Works*. 3rd ed. New York, NY: St. Martin's Griffin; 2012.
9. Lowe MR, Levine AS. Eating motives and the controversy over dieting: eating less than needed versus less than wanted. *Obes Res*. 2005;13(5):797-806.
10. Methods for voluntary weight loss and control. NIH Technology Assessment Conference Panel. *Ann Intern Med*. 1992;116(11):942-949.
11. Mindfulness. Merriam-Webster website. <http://www.merriam-webster.com/dictionary/mindfulness>. Accessed April 15, 2015.
12. Kabat-Zinn J. MBSR standards of practice: background and overview: mindfulness-based stress reduction. Center for Mindfulness in Medicine, Health Care, and Society, University of Massachusetts Medical School website. <http://www.umassmed.edu/cfm/stress-reduction/mbsr-standards-of-practice/>. Accessed April 15, 2015.
13. Jon Kabat-Zinn on the heart of mindfulness. Psychotherapy Networker Mindfulness Meets Clinical Practice website. <http://mindfulnesspractice.kajabi.com/fe/78918-jon-kabat-zinn?r=y>. Accessed April 15, 2015.
14. Kabat-Zinn, J. *Coming to Our Senses: Healing Ourselves and the World Through Mindfulness*. 1st ed. New York, NY: Hyperion; 2005.
15. Rutledge R, Walker T. The Healing Circle. The Healing and Cancer Foundation; 2011.
16. Eating one raisin: a first taste of mindfulness. Extension Service, West Virginia University website. <http://hfhc.ext.wvu.edu/r/download/114469>. Accessed April 15, 2015.

17. How to eat mindfully. University of Minnesota Taking Charge of Your Health and Wellbeing website. <http://www.takingcharge.csh.umn.edu/activities/how-eat-mindfully>. Updated September 30, 2013. Accessed November 15, 2015.
18. The principles of mindful eating. The Center for Mindful Eating website. <http://www.thecenterformindfuleating.org/Principles-Mindful-Eating>. Accessed April 15, 2015.
19. Hudnall M. A mindful, “non-diet” approach to eating. In: Glovsky ER, ed. **Wellness, Not Weight: Health At Every Size and Motivational Interviewing**. 1st ed. San Diego, CA: Cognella Academic Publishing; 2012: 3-14.
20. Resources. The Original Intuitive Eating Pros website. <http://intuitiveeating.org/content/resources>. Accessed April 16, 2015.
21. Tribole E. Intuitive eating in the treatment of eating disorders: the journey of attunement. Evelytribole.com website. <https://www.evelytribole.com/uploads/Tribole.IntuitiveEating.Eating%20Disorders.2010.pdf>. Published 2010.
22. Satter E. Eating competence: definition and evidence for the Satter Eating Competence Model. *J Nutr Educ Behav*. 2007;39(5 suppl):S142-S153.
23. Lohse B, Satter E, Horacek T, Gebreselassie T, Oakland MJ. Measuring eating competence: psychometric properties and validity of the ecSatter Inventory. *J Nutr Educ Behav*. 2007;39(5 suppl):S154-S166.
24. Eating competence. Ellyn Satter Institute website. <http://ellynsatterinstitute.org/hte/eatingcompetence.php>. Updated 2016.
25. Home. Self-Determination Theory website. <http://www.selfdeterminationtheory.org/>. Updated 2016.
26. Teixeira PJ, Patrick H, Mata J. Why we eat what we eat: the role of autonomous motivation in eating behaviour regulation. *Nutr Bulletin*. 2011;36(1):102-107.
27. Brown KW, Ryan RM, Creswell JD. Mindfulness: theoretical foundations and evidence for its salutary effects. *Psychol Inquiry*. 2007;18(4):211-237.
28. University of Massachusetts Center for Mindfulness in Medicine, Health Care and Society website. <http://www.umassmed.edu/cfm>. Updated 2014. Accessed November 15, 2015.
29. Mindful Self-Compassion website. <http://www.mindfulselfcompassion.org/mscprogram.php>. Updated 2016.
30. Dialectical behavior therapy (DBT). Mindfulness Therapy Associates website. <http://mindfulnesstherapy.org/dbt/>. Accessed November 15, 2015.

31. Acceptance & Commitment Therapy (ACT). Association for Contextual Science website. <https://contextualscience.org/act>. Accessed November 15, 2015.
32. Mindful eating bibliography. The Center for Mindful Eating website. http://www.thecenterformindfuleating.org/Resources/Documents/Mindful_Eating_Bibliography2013.pdf. Accessed April 16, 2015.
33. Alberts HJ, Mulkens S, Smeets M, Thewissen R. Coping with food cravings. Investigating the potential of a mindfulness-based intervention. *Appetite*. 2010;55(1):160-163.
34. Alberts HJ, Thewissen R, Raes L. Dealing with problematic eating behaviour. The effects of a mindfulness-based intervention on eating behaviour, food cravings, dichotomous thinking and body image concern. *Appetite*. 2012;58(3):847-851.
35. Beshara M, Hutchinson AD, Wilson C. Does mindfulness matter? Everyday mindfulness, mindful eating and self-reported serving size of energy dense foods among a sample of South Australian Adults. *Appetite*. 2013;67:25-29.
36. Framson C, Kristal AR, Schenk JM, Littman AJ, Zeliadt S, Benitez D. Development and validation of the mindful eating questionnaire. *J Am Diet Assoc*. 2009;109(8):1439-1444.
37. Jordan CH, Wang W, Donatoni L, Meier BD. Mindful eating: trait and state mindfulness predict healthier eating behavior. *Pers Individ Dif*. 2014;68(1):107-111.
38. Kristeller JL, Wolever RQ. Mindfulness-based eating awareness training for treating binge eating disorder: the conceptual foundation. *Eat Disord*. 2011;19(1):49-61.
39. Hofmann SG, Sawyer AT, Witt AA, Oh D. The effect of mindfulness-based therapy on anxiety and depression: a meta-analytic review. *J Consult Clin Psychol*. 2010;78(2):169-183.
40. Olson KL, Emery CF. Mindfulness and weight loss: a systematic review. *Psychosom Med*. 2015;77(1):59-67.
41. Katterman SN, Kleinman BM, Hood MM, Nackers LM, Corsica JA. Mindfulness meditation as an intervention for binge eating, emotional eating, and weight loss: a systematic review. *Eat Behav*. 2014;15(2):197-204.
42. O'Reilly GA, Cook L, Spruijt-Metz D, Black DS. Mindfulness-based interventions for obesity-related eating behaviours: a literature review. *Obes Rev*. 2014;15(6):453-461.
43. Kristeller J, Wolever RQ, Sheets V. Mindfulness-based eating awareness training (MB-EAT) for binge eating disorder: a randomized clinical trial. *Mindfulness*. 2013;5(3):282-297.
44. Anderson K. The mindful eating cycle: treatment for binge eating disorder. Paper presented at: 2015 ICED meeting of the Academy for Eating Disorders; April 24, 2015; Boston, MA.

45. Proulx K. Experiences of women with bulimia nervosa in a mindfulness-based eating disorder treatment group. *Eat Disord*. 2008;16(1):52-72.
46. Glovsky E. Motivational interviewing: the basics. In: Glovsky E, ed. **Wellness, Not Weight: Health At Every Size and Motivational Interviewing**. 1st ed. San Diego, CA: Cognella Academic Publishing; 2012: 33-55.
47. Miller WR, Rollnick S. Meeting in the middle: motivational interviewing and self-determination theory. *Int J Behav Nutr Phys Act*. 2012;9:25.
48. Trauma and eating disorders. National Eating Disorders Association website. <https://www.nationaleatingdisorders.org/trauma-and-eating-disorders>. Accessed December 21, 2015.
49. Binge eating disorder causes and risk factors. Binge Eating Disorder Association website. <http://bedaonline.com/understanding-binge-eating-disorder/binge-eating-disorder-causes/>. Accessed December 21, 2015.
50. Tomiyama AJ, Ahlstrom B, Mann T. Long-term effects of dieting: is weight loss related to health? *Soc Pers Psychol Compass*. 2013;7(12):861-877.
51. Verstuyf J, Patrick H, Vansteenkiste M, Texeira PJ. Motivational dynamics of eating regulation: a self-determination theory perspective. *Int J Behav Nutr Phys Act*. 2012;9:21.
52. Matz J, Frankel E. **Beyond the Shadow of a Diet: The Comprehensive Guide to Treating Binge Eating Disorder, Compulsive Eating, and Emotional Overeating**. 2nd ed. New York, NY: Routledge; 2014.
53. Bush HE, Rossy L, Mintz LB, Schopp L. Eat for life: a work site feasibility study of a novel mindfulness-based intuitive eating intervention. *Am J Health Promot*. 2014;28(6):380-388.

Quiz

1. Individuals who eat mindfully do which of the following?

- A. Focus on counting calories in order to achieve weight goals
- B. Use external information to guide them in their food choices
- C. Use their internal cues to guide their eating
- D. Direct their awareness to the future or to the past when eating

2. What portion of people who lose weight by following a restrictive diet eventually regain more weight than they lost?

- A. 33-66%
- B. 20-30%
- C. 12-18%
- D. 5-7%

3. Mindful eating can help alleviate anxiety and depression among dieters.

- A. True
- B. False

4. Which of the following is an aspect of mindful eating?

- A. Using portion sizes to decide how much to eat
- B. Acknowledging responses to food (likes, neutral, or dislikes) without judgment
- C. Ignoring one's physical hunger and satiety cues
- D. Restrictive eating geared solely toward weight loss

5. Structured eating is a method that does which of the following?

- A. Estimates total daily caloric intake by using a simple point system
- B. Helps clients identify where in their daily intake hidden calories may exist
- C. Provides more guidance for clients who do not recognize or trust internal cues for eating
- D. Breaks down daily total calorie intake into carbohydrate, fat, and protein percentages

6. Potential benefits associated with mindfulness and mindful eating that have been researched include which of the following?

- A. Its impact on food preferences
- B. Its impact on timing of meals
- C. Its impact on food preparation behaviors
- D. Its impact on food allergies

7. The effect of mindful eating on body weight has been widely investigated. Researchers have also studied its effects on which of the following?

- A. Total protein intake
- B. Identifying food allergies
- C. Total carbohydrate intake
- D. Treatment for eating disorders

8. Studies of the impact of mindfulness on body weight are confounded by combined treatment methods.

- A. True
- B. False

9. Albers et al examined whether mindfulness-based strategies had a positive effect on food cravings. The research consisted of a seven-session mindfulness-based intervention to increase acceptance of food cravings. Participants receiving the mindfulness-based training reported which of the following?

- A. Significantly lower cravings for food
- B. An overall increase in food cravings
- C. No change in their food cravings
- D. A stronger preference for sweets

10. The practice of maintaining a nonjudgmental state of heightened or complete awareness of one's thoughts, emotions, or experiences on a moment-to-moment basis is a definition of which of the following?

- A. Mindfulness
- B. Acceptance and commitment therapy
- C. Structured eating
- D. Competent eating