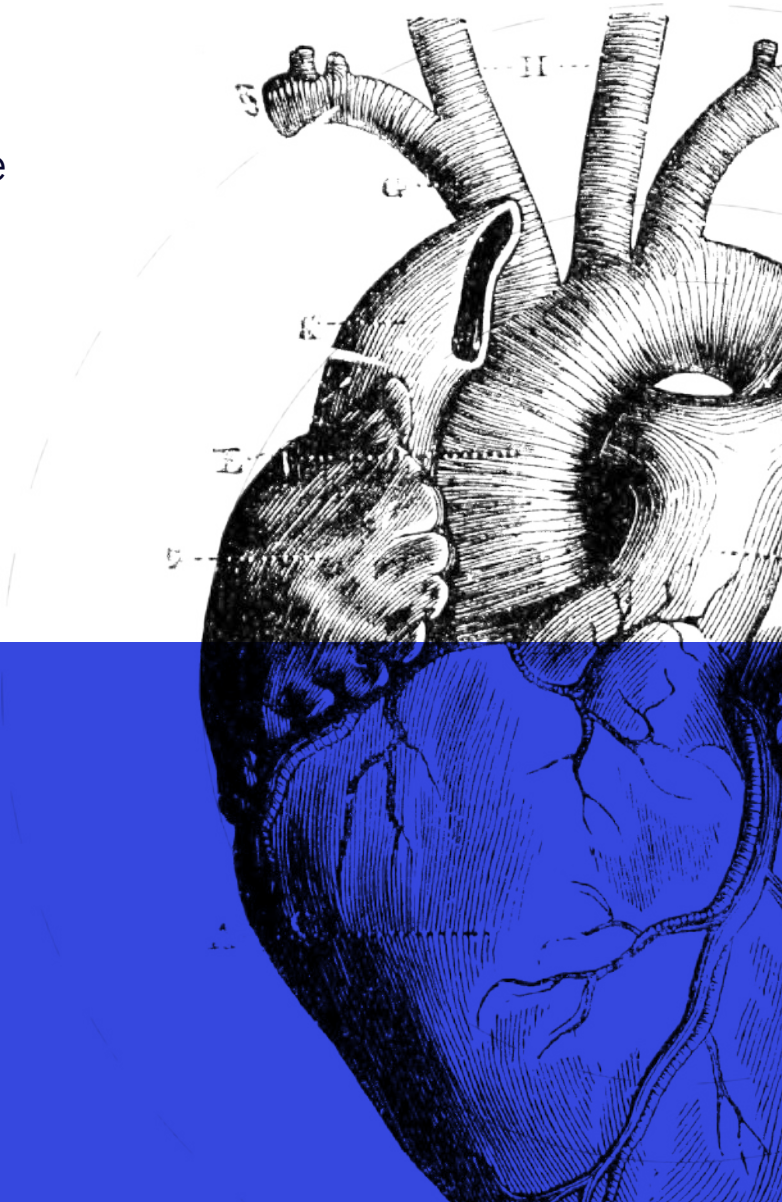
Best Practices in

Obesity Medicine

Stigma vs Science:
Untangling the Perception of Obesity and Treating the Disease



Intellihealth

Obesity is an Epidemic

Obesity has tripled worldwide since 1975 and currently affects nearly 40% of the U.S. population.[1] It is predicted that nearly 50% of adults will have obesity and almost 25% will have severe (class III) obesity by 2030.[2] While there is a widespread belief that obesity can be attributed to patients' lack of willpower, this is a misconception. Obesity is a chronic disease that negatively affects nearly every organ system and is recognized as such by many prominent medical organizations including the World Health Organization, National Institutes of Health, and the Food and Drug Administration. Yet, less than 2% of people with obesity are being treated with a comprehensive, integrated medical approach.[3]

Another incentive for better treatment of individuals with obesity is the significant financial investment in obesity-related health conditions. In the U.S., direct obesity-related medical costs are estimated to be $210 billion to $316 billion annually, which is 21% to 28% of total healthcare spending.[4] These numbers do not include indirect medical costs, such as reduced employee productivity and absenteeism.

Introducing Intellihealth

Intellihealth aims to address these concerns and change the way the disease of obesity is perceived and treated. For more than 30 years, our founder and Chief Medical Officer, Dr. Louis Aronne, and his team of physicians, nurses, and dietitians have successfully treated individuals with obesity with a combination of lifestyle-focused behavior change and pharmacotherapy. This comprehensive approach results in an average weight loss of 8%. Importantly, even a 5% loss can significantly reduce the risk of weight-related chronic diseases like type 2 diabetes,[5] which demonstrates the potential benefits of patients' involvement in this program.

In order to help other providers easily and efficiently extend their practices with a research-backed obesity management program, we developed Evolve. Our comprehensive platform combines technology that provides automated treatment recommendations, easy-to-use patient tracking, management tools, telemedicine, educational and training resources, and optional services including outsourcing care to our team of experts.

Intellihealth has published this booklet to share some of our best practices in obesity medicine. By partnering with healthcare practitioners around the country and beyond, we hope to reduce the prevalence of obesity and help people live happier, healthier lives.

Table of Contents

Treat Obesity as a Disease	3
Know How to Communicate With Patients	5
Consider Pharmacotherapy	7
Measure & Track Waist Circumference, Not Just BMI	8
Screen for Sleep Apnea	9
Choose the Right Platform	10
Keep Patients Engaged & Motivated	11
Case Studies	13

BEST PRACTICE #1

Treat Obesity as a Disease

Losing weight is not just about diet and exercise. There are many underlying factors that cause excess weight, including genetics, medications, and comorbid physical conditions (e.g., sleep apnea and insulin resistance). The first step of understanding how to effectively and compassionately treat patients with obesity is to recognize that it is a multifactorial, chronic disease.

Most patients have limited success with weight loss because of "metabolic adaptation," a phenomenon where the body undermines the effects of lifestyle modifications. As a result, successful treatment of obesity requires a multidisciplinary approach including not only diet, physical activity, and behavioral modifications, but also advanced treatments such as pharmacotherapy when appropriate.

Treating obesity systematically and comprehensively improves health complications in almost every organ system and reduces death from heart disease, diabetes, cancer and other weight-related diseases. And, just a 5% decrease in weight or body weight can save organizations more than $10,000 per year per employee in obesity-related healthcare costs.[4]

The Emotional Effects of Obesity

Anxiety, lack of motivation, negative self worth, insomnia, weight-related stigma, isolation, severe depression, helplessness, self-consciousness.

The Economic Effects of Obesity

Much higher healthcare costs, reduced productivity on and off the job, worker absenteeism.

How Obesity Causes Other Diseases

Increased expression of some hormones and suppression of others leads to inflammation and disease.[6]



Medical Complications of Obesity

From type 2 diabetes and cancer to asthma, gout and polycystic ovarian syndrome (PCOS), nearly every organ system is affected by obesity.

- Asthma
- Cancer
- Cardiovascular Disease
- Chronic Kidney Disease
- Hypertension
- Metabolic Syndrome
- Obstructive Sleep Apnea
- Polycystic Ovarian Syndrome
- Stroke
- Type 2 Diabetes
- And others...

BEST PRACTICE #2

Know How to Communicate With Patients

There are many sensitivities when treating patients with obesity and higher body weight. First, there is the misconception that obesity is caused by consuming too many calories, not exercising enough and an overall lack of willpower, which may lead to weight-related stigma. Second, many individuals with obesity may feel like they have tried everything to lose weight and thus may be frustrated by another program that promises results.

It is important to understand these sensitivities in order to communicate effectively with patients. We suggest the following strategies:

1. Be Approachable

Collaborate with each patient and convey that you are a team. Use language such as, "We will help you brainstorm strategies that support your goals," and "We will work together to figure out which techniques are best for you."

2. Show Compassion

Acknowledge the challenges that each patient may have faced during prior attempts at weight loss and weight maintenance. Use language like, "While this strategy may seem simple, we recognize that following through may not always be easy. We will work together to help you identify barriers that may get in your way and equip you with strategies that have been proven to be successful for overcoming those challenges."

3. Provide Therapeutic Optimism

Acknowledge strategies that patients may have tried in the past and specifically explain how the recommended tools may produce different, more promising results. Use language such as, "While you may have tried tracking your food intake, you may not have tried focusing on your meal timing, which may make it easier to stick to your calorie target."

4. Gain Their Trust

Use a supportive voice to increase trust and confidence and to encourage patients that the treatment approach has the potential to facilitate long-term changes, which may increase motivation and engagement. Use language like, "You exceeded your goal for this week- great job! You're one step closer to making this change a lifelong habit."

5. Leverage Science

Communicate evidence-based strategies with patients and explain the rationale for asking certain questions during assessments (e.g., “We ask about your dieting history because research has shown that your prior weight loss attempts may influence future attempts to lose weight.”), as well as when explaining the utility of various treatment strategies (e.g., “The research shows that detailed tracking of your food intake is one of the most effective strategies for weight loss.”).

6. Let Them Know They’re Unique

Let patients know they will receive tailored strategies based on their personal characteristics and past experiences. Use language such as, “You indicated that you experience binge eating. One of the most important strategies to prioritize will be to regulate your meal timing, in order to reduce the likelihood that you experience urges to binge.”



Communicating effectively and compassionately can have a tremendous impact on patient participation and motivation.

BEST PRACTICE #3

Consider Pharmacotherapy

For many individuals with obesity, lifestyle changes are not sufficient for significant and sustained weight loss. Patients may have tried to lose weight through various diet and exercise plans in the past and either struggled to lose significant weight or maintain the weight loss. These patients may feel helpless, frustrated and even ashamed, as they are likely to believe that these prior attempts “failed” because of their own willpower. This population may benefit from pharmacotherapy. Evolve guides practitioners to select appropriate medications for each patient and customize the treatment plan for ongoing success.

Additionally, it is important to note that many prescribed and over-the-counter medications are associated with weight gain and are known to cause or exacerbate obesity. If possible, these should be replaced with weight-neutral medications or those that promote weight loss. Evolve provides training and resources on how to make these modifications.

Case Study: One Patient's Success With Pharmacotherapy

As a child, this patient was called "skinny" but as he approached age 30 he began gaining weight. He had relentless cravings and regularly consumed bread, cookies, sandwiches and other carb-heavy food items. By his mid-fifties he weighed 265 pounds at 5'7" and had type 2 diabetes, for which he took a TZD and a sulfonylurea.

Intellihealth doctors replaced this patient's TZD with an SGLT2 inhibitor and he lost 20 pounds. By adding a GLP-1 agonist he lost another 30 pounds but later developed cravings, so bupropion/naltrexone was added. He lost another 25 pounds. To this day this patient has maintained more than a 75-pound weight loss. The medication helped him use the skills he learned in counseling, such as managing his cravings. Changing medications and treating obesity as a disease had a profound effect.

A thorough review of a patient’s prescriptions and over-the-counter medicines is critical to identifying potential drug-induced weight gain and modifying their medication regimens with medications that are weight-neutral or those that promote weight loss.

BEST PRACTICE #4

Measure & Track Waist Circumference

Not Just Body Mass Index (BMI)

It is important to understand the clinical relevance of waist circumference. While body mass index (BMI) is inexpensive and commonly used, it has limitations. BMI does not distinguish between peripheral vs. visceral obesity nor does it distinguish between fat mass and lean body mass. Two patients can have the same BMI even though their body composition and metabolic profile may be drastically different. Waist circumference is an inexpensive marker of metabolic risk that may be more informative than BMI in a number of ways. For example, waist circumference has been found to predict diabetes beyond that explained by traditional cardiometabolic risk factors and BMI.[7]

How to Measure Waist Circumference

01 Place measuring tape in horizontal plane around abdomen.

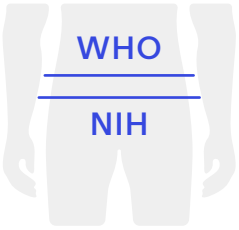
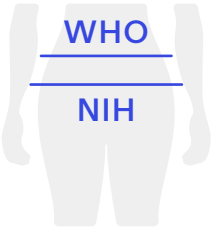
02 Before reading tape measure, ensure tape is snug, but does not compress skin, and is parallel to the floor.

03 Measurement made at end of normal expiration.

04 NIH – measure taken at highest point of iliac crest.

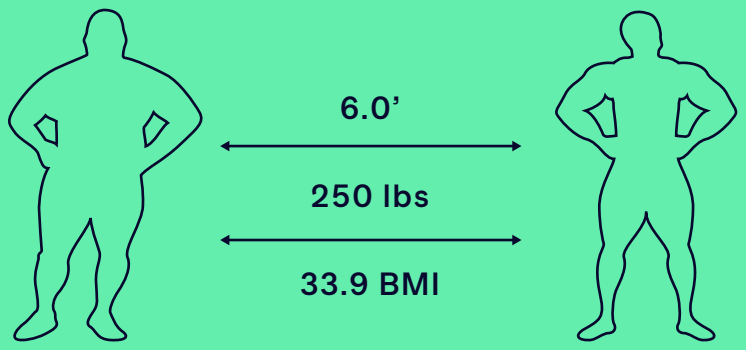
05 WHO – measure taken midway between highest point of iliac crest and bottom of ribcage.

06 In practice: easiest location might be level of umbilicus.

Men		Women
		
>40 in. (>102 cm)	**HIGH RISK**	**>35 in.** (>88 cm)

Measuring at a consistent location is key!

BMI Can Be the Same for Very Different Body Types



BEST PRACTICE #5

Screen for Sleep Apnea

Sleep apnea is very common in individuals with obesity and is often overlooked. More than 70% of patients with BMI 30 – 39.9 have sleep apnea, and that number increases the greater the BMI. More than 95% of patients with BMI greater than 60 have sleep apnea.[8]

For patients with obesity, sleep apnea is a vicious cycle: A lack of sleep can cause increased hunger and hormonal changes, and the more weight gained the greater the risk and severity of sleep apnea.

Patients with sleep apnea will usually have a history of symptoms including loud snoring and cessation of breathing during sleep followed by loud clearing breath then brief awakening. A physical examination may show hypertension, enlarged neck circumference, narrowing of the upper airway, scleral injection and leg edema secondary to pulmonary hypertension.

The STOP-Bang Questionnaire is a useful tool for identifying potential sleep apnea.[9] Patients who exhibit symptoms of sleep apnea should be referred to a sleep specialist.

- **S** noring
- **T** iredness (daytime)
- **O** bserved Apnea
- **P** ressure (high blood)
- **B** MI > 35kg/m2
- **A** ge > 50
- **N** eck Circumference
  > 17" (men) 16" (women)
- **G** ender (men)

Score 1 Point for Each Positive Response

<3	**=**	**Low Risk**
3-4	**=**	**Intermediate Risk**
5-8	**=**	**High Risk**

BEST PRACTICE #6

Choose the Right Platform

While there are many diet and exercise programs, Intellihealth is one of the only companies that help providers grow their practice with a comprehensive platform for the medical management of obesity that integrates with their existing EHR. Our platform, Evolve, enables patients to achieve and maintain greater weight loss than those using behavioral and nutritional programs alone.

- **Technology** that provides automated pharmacological and behavioral treatment recommendations backed by 30 years of patient outcomes. Evolve enables telemedicine and includes tools for easily tracking and managing patients' progress.
- **Education** and training on why and how to treat obesity as a disease.
- **Optional services** including outsourcing to our team of obesity healthcare experts and marketing support to help attract new patients.

With Evolve, providers can improve their patients' health while increasing revenue through more patients and visits. The more patients they acquire, the lower the cost of our platform. Additionally, providers who extend Evolve to their own employees with obesity and higher body weight can significantly reduce their own healthcare costs.

With Evolve, Providers Can:

- Easily track, manage and securely communicate with patients via video, voice and messaging.
- Compare various weight measurements (e.g. in office, digital scales, self weigh-in).
- View detailed assessments and automated recommendations for each patient.
- Instantly create new appointments and virtual visits.



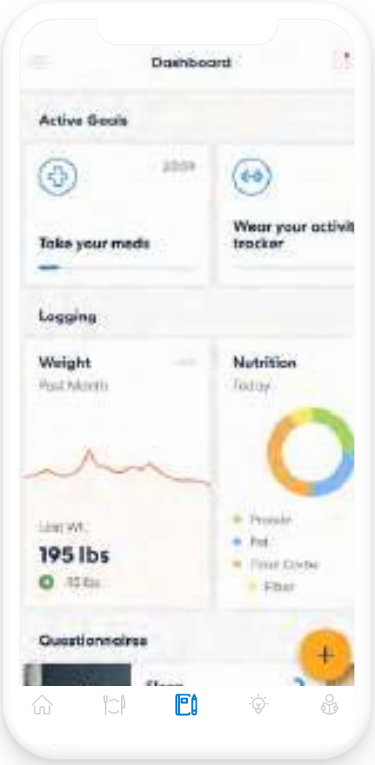
BEST PRACTICE #7

Keep Patients Engaged & Motivated

Losing weight and maintaining weight loss is an ongoing process that can be extremely frustrating for patients. Many individuals experience weight regain or do not achieve their desired results as quickly as expected, which can exacerbate hopelessness or underlying emotional conditions like depression and anxiety. In addition to being compassionate and reiterating that obesity is a disease that requires lifelong management, it is essential to provide tools and resources that help patients make sustainable changes.

Give Patients a Personal Dashboard

to track their progress, receive reminders & communicate with their healthcare team



Encourage Patients with Reasonable Goals

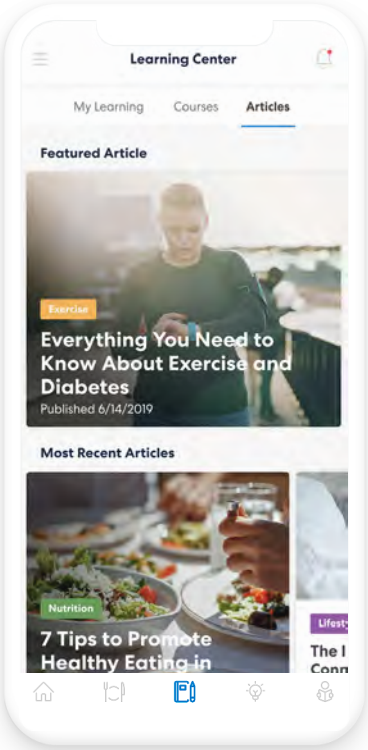


Evolve makes it easy for providers to motivate their patients through group support, video, email and chat while providing educational resources like tutorials and videos. It is the only platform that enables dietitians and patients to collaborate on meal planning through real-time chat, adding an extra layer of care and support.

Enable Patients to Easily Track Meals & Nutritional Value



Educate Patients with Useful Videos, Tutorials & Other Resources



IN APPLICATION

Case Studies



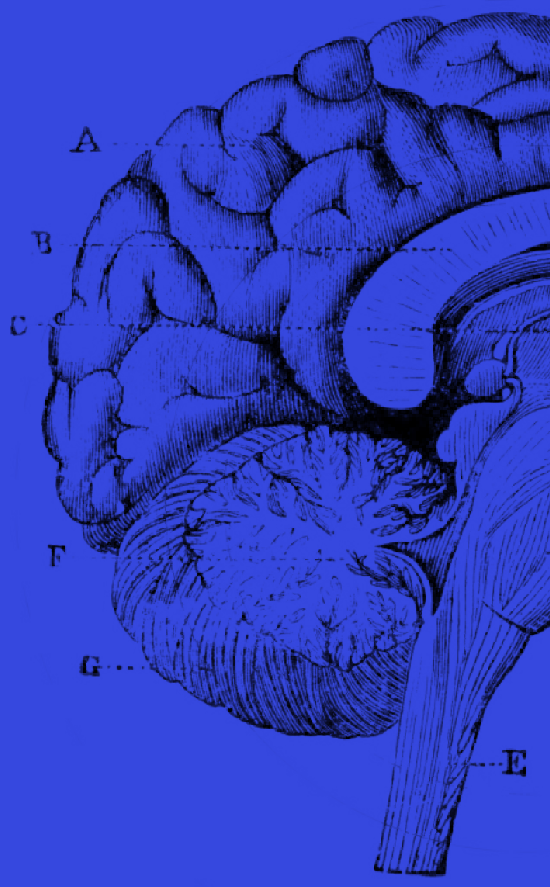
VA county employees lost an average 15 pounds in 6 months.



Self-insured organization projected $89k annual medical cost savings.

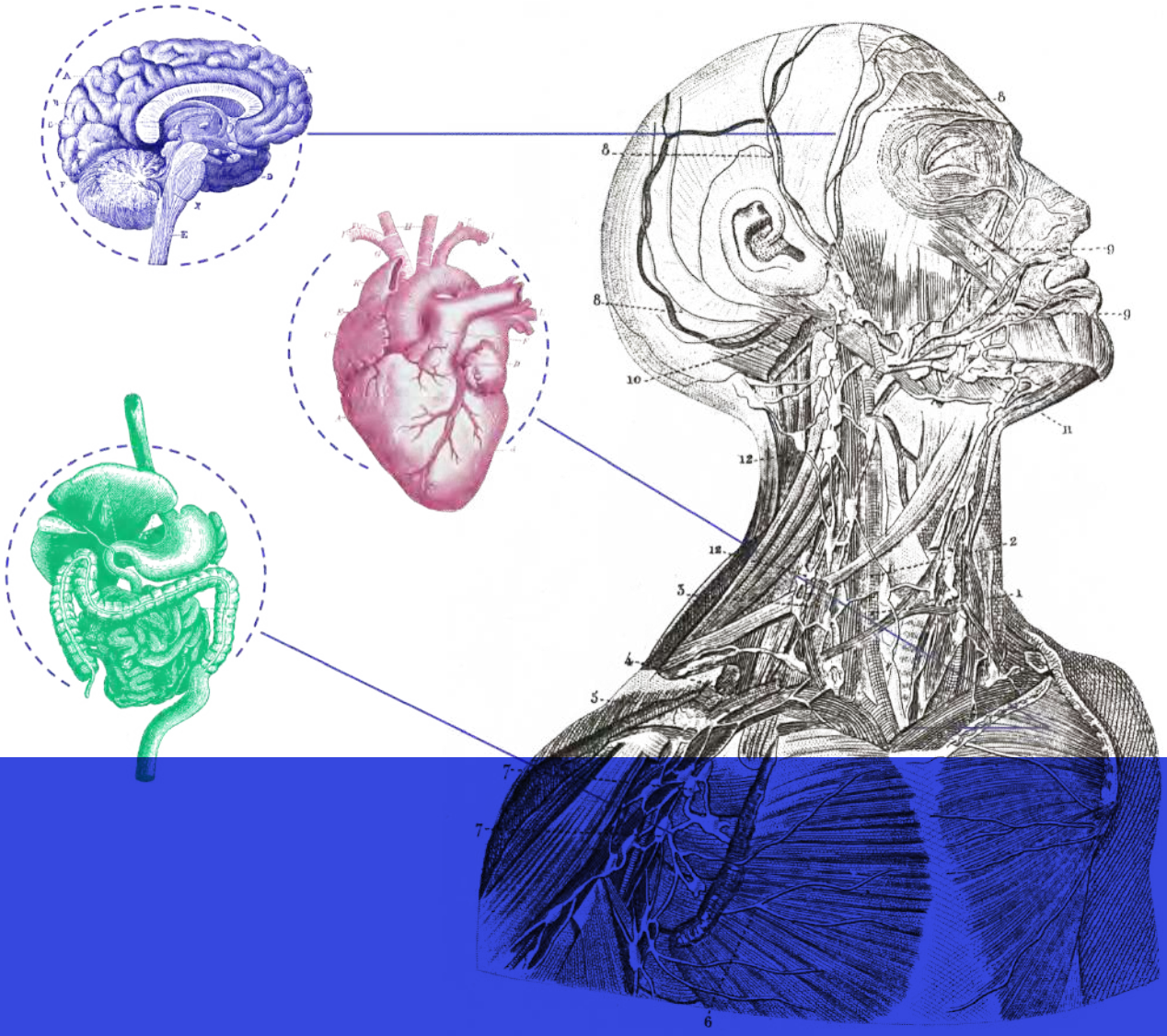


49% of patients lost 10% of their body weight in a study performed at the Comprehensive Weight Control Center.



Download the Full Case Studies At intellihealth.co

1. Hales CM, Carroll MD, Fryar CD, Ogden CL. Prevalence of Obesity Among Adults and Youth: United States, 2015-2016. NCHS Data Brief. 2017;(288):1-8.
2. Ward ZJ, Bleich SN, Cradock AL, et al. Projected U.S. State-Level Prevalence of Adult Obesity and Severe Obesity. N Engl J Med. 2019;381(25):2440-2450.
3. Saxon DR, Iwamoto SJ, Mettenbrink CJ, et al. Antiobesity Medication Use in 2.2 Million Adults Across Eight Large Health Care Organizations: 2009-2015. Obesity (Silver Spring). 2019;27(12):1975-1981.
Thomas CE, Mauer EA, Shukla AP, Rathi S, Aronne LJ. Low adoption of weight loss medications: A comparison of prescribing patterns of antiobesity pharmacotherapies and SGLT2s. Obesity (Silver Spring). 2016;24(9):1955-61.
4. Crawley J, Meyerhoefer C, Biener A, Hammer M, Wintfeld N. Savings in Medical Expenditures Associated with Reductions in Body Mass Index Among US Adults with Obesity, by Diabetes Status. Pharmacoeconomics. 2015 Jul;33(7):707-22.
5. Wing RR, Lang W, Wadden TA, et al. Benefits of modest weight loss in improving cardiovascular risk factors in overweight and obese individuals with type 2 diabetes. Diabetes Care. 2011;34(7):1481-6.
6. Bray GJ. Medical Consequences of Obesity. Clin Endocrinol Metab. 2004 Jun;89(6):2583-9.
7. Janiszewski PM, Janssen I, Ross R. Does Waist Circumference Predict Diabetes and Cardiovascular Disease Beyond Commonly Evaluated Cardiometabolic Risk Factors? Diabetes Care. 2007;30(12):3105-9.
8. Parish JM, Somers VK. Obstructive sleep apnea and cardiovascular disease, Mayo Clin Proc. 2004;79(8)1036-46.
9. Chung F, Abdullah HR, Liao P. STOP-Bang Questionnaire: A Practical Approach to Screen for Obstructive Sleep Apnea. Chest. 2016 Mar:149(3):631-8.
10. Prevalence of Obesity and Trends in the Distribution of Body Mass Index Among US Adults, 1999-2010 Katherine M. Flegal, PhD; Margaret D. Carroll, MSPH; Brian K. Kit, MD; et alCynthia L. Ogden, PhD Author Affiliations Article Information JAMA. 2012;307(5):491-497. doi:10.1001/jama.2012.39



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