Disordered Behaviors

While only a small percentage of students meet the strict diagnostic criteria for an eating disorder, many students struggle with food, weight, and/or body image concerns. These concerns may result in restrictive dieting, emotional overeating, compulsive exercise, use of various weight loss products or muscle building agents, cigarette smoking, or excessive caffeine consumption. Not only can these disordered behaviors damage your physical health, but they can also compromise your emotional well-being, your social life, and your academic success.

Read on to learn how these behaviors harm our bodies, and what you can do to move toward a healthier lifestyle if you struggle with these behaviors:

- **Restrictive eating**
- **Emotional overeating or binge eating**
- **Positive steps towards change**
**Restrictive Eating:**

**To Eat or Not To Eat?**
Robin is a tall, slender sorority woman with great grades, a great personality, and a great boyfriend. She looks like she has the perfect body (and the perfect life!), but she’s always complaining about how fat she is. She really “watches” what she eats—counting every calorie and fat gram, avoiding all sugars, loading up on lots of vegetables—and now she’s talking about becoming a vegetarian for “health” reasons. Once in a while, she’ll indulge in dessert at dinner. But whenever she does, she feels so guilty and panics all night about how fat she’s going to get. She starts obsessing about how many calories she just ate and how she’s going to make up for it tomorrow with an even stricter eating regimen or a more rigorous work-out. Robin is suffering from restrictive eating, and it can lead to some serious problems down the road.

**Negative Effects of Restrictive Dieting and Starvation**
There’s nothing wrong with watching what you eat and balancing your food choices to maintain a healthy body. But, when taken to extremes—and the “watching” becomes obsessing several hours a day and the “balancing” becomes rigid policing of every food—the behavior is no longer healthy. Think about it, if you have to go to extremes to reach a certain weight or size, then your body was probably not meant to be that weight or size in the first place!

**Why do we need to eat?**
The most basic reason is for energy. Energy in food is measured in calories. Each of us needs to eat enough calories to meet our resting metabolic rate (the calories needed to maintain all of our body’s internal functions at rest) AND our physical activity (the calories needed to perform all the normal activities of daily living, as well as purposeful exercise). Resting metabolic rate alone amounts to about 1100 calories per day in a petite 110 lb. woman and about 1700 calories per day in a lean 155 lb. man. Add to that, the calories needed for moderate (not heavy) physical activity, and the total calorie needs for that same woman and man amounts to about 1700 and 2700 calories per day, respectively, just for weight maintenance! If you are taller, have more lean body mass, and/or engage in heavier physical activity, you’ll need even more calories to maintain your weight.

Three things in food provide energy: carbohydrate, protein, and fat. Carbohydrate breaks down to glucose to provide energy; and fat breaks down to fatty acids to supply energy. Protein breaks down to amino acids, which can also supply energy if needed, but our bodies prefer to use them as building blocks for all our vital cells, enzymes, and hormones. In addition to energy, we need to eat to get the essential vitamins, minerals, fiber, and phytonutrients that food provides.
**What happens when we don’t eat enough calories?**

Think of the calories in your body as the gas in your car to take a cross-country trip. The car needs a certain amount of gas to get there. To make the trip, you would fill up the tank and refuel it several times along the way. You wouldn’t just fill the tank half way, and you wouldn’t avoid refueling it when the tank became empty. If you did, your car wouldn’t perform well, and you wouldn’t get to your destination.

Our bodies need adequate fuel too, and our bodies need to be refueled every 3-5 hours to perform well. If we don’t refuel our bodies with adequate calories throughout the day, our body (and all of its systems) will start to shut down. Consider the negative consequences of inadequate calorie intake:

**Physical effects**

- Decreased resting metabolic rate. Your body slows down its internal workings so that it can survive with fewer calories. This is why your weight may stay the same despite eating inadequate calories.
- Loss of lean body mass. If your body isn’t getting adequate calories or protein from food, it will break down your own body tissues (i.e. your muscles, organs, and even your heart!) for energy and/or amino acids. As your lean body mass drops, your resting metabolic rate drops even more.
- Changes in brain chemistry that increase appetite and food cravings. Serotonin levels decrease and neuropeptide Y levels increase—both of these changes increase your appetite dramatically. This may be why binge eating is so common after periods of restrictive eating.
- In women, lowered estrogen levels and cessation of menses (amenorrhea). Over time, this can lead to dramatic bone loss and osteoporosis, as well as infertility.
- Constipation and gastrointestinal upset. Your digestive system (like all of your systems) slows down, so food moves more sluggishly through you. Also, without adequate protein, you can’t produce the digestive enzymes needed to break down food. This may be why it feels so uncomfortable when eating normal amounts of food.
- Sleep disturbance and weakness. Without adequate calories or carbohydrate, blood glucose levels drop. This results in weakness as well as an increase in stress hormones that interfere with sleep.
- Hypothermia (feeling cold all the time) due to inadequate body fat levels.
- Decreased sexual interest. Without adequate calories or fat, your body can’t produce sex hormones (estrogen and testosterone).

**Cognitive effects**

- Decreased concentration
- Poor judgment
- Apathy
Emotional and social effects

- Depression and anxiety
- Irritability and anger
- Lability (ever-changing mood)
- Psychotic episodes
- Personality changes
- Social withdrawal

NOTE: The cognitive and emotional side effects may be related to changes in the central nervous system during starvation (when adequate carbohydrate, fat, and/or protein is not available). Each of these nutrients is critical for optimal brain function. Carbohydrate is the only energy source that the brain can use for fuel (other cells can use either carbohydrate, fat, or protein; but the brain can ONLY use carbohydrate). Fat forms the major material of cell membranes in the brain and nerves (these membranes are critical for normal transmission of chemical messages throughout the body). Protein provides the building blocks for mood-regulating brain chemicals like serotonin (low serotonin levels have been associated with depression and anxiety).

Effects on attitudes and behaviors towards food

- Food preoccupation. Your body desperately wants to eat, so all of your thoughts and interests involve food.
- Collection of recipes, cookbooks, and menus. Again, your body is fascinated with food because it is so hungry!
- Increased consumption of coffee, tea, and diet sodas. As your energy levels plummet, you turn to stimulants in these beverages to keep you going. What you really need is food energy (from carbohydrate, fat, and protein).
- Loss of body’s natural mechanisms for regulating hunger and fullness. When you let a diet dictate what and how much you should or should not be eating, you lose touch with your internal cues that normally regulate hunger and satiety. This can lead to overeating in the future because you can’t tell when your body is physically full.
- Binge eating when food is finally available. After all, your body doesn’t trust that food will be available again later. So, it desperately tries to hoard as much food NOW as it possibly can.
- Dichotomous thinking about food (i.e. “good food-bad food” mentality). Diet books love to put foods in these two categories. And when they do, two things happen:
  1) Your cravings for the so called “bad foods” increase (after all, whenever something is off limits or forbidden, we seem to want it more).
  2) Your risk of binge eating on the so called “bad foods” increases (after all, if you eat one cookie, you’ve already blown your “diet,” so you might as well eat the whole box and then restart your diet tomorrow).

As you can see from this list of effects, restrictive dieting not only negatively impacts your emotional, social, and academic life, but it also can directly contribute to binge eating and weight re-gain (as mostly fat) later. Consider this: there are more diet books, diet centers, diet supplements, diet drugs, and diet foods now than ever before. And, there are more people dieting now than ever before (an
estimated one half of US women and more than 1/4 of US men are on a diet at any given time). Yet obesity rates have increased 60% over the past two decades! And, eating disorders are more prevalent than ever! Just a coincidence? No. Dieting helps contribute to both obesity and eating disorders.

**Overcoming Fears (if you are a restrictive eater):**

**If I eat more, won’t I gain weight?**
Not necessarily. As you increase your calorie intake to a more appropriate level, your resting metabolic rate will rev back up to normal. So, even though you’re eating more, you will be burning more, and your weight will stay the same.

NOTE: If you previously lost a large amount of weight rapidly through very restrictive dieting and now you are underweight, it may be in your best interest to gain a little weight back. But, most of this weight gain will be due to the reconstruction of your lean body mass. You can make an appointment with an Ashe clinician for help with this.

**How many extra calories does it take to gain 1 pound?**
It costs about 3500 extra calories to gain 1 pound. In other words, if you need 2000 calories per day to maintain your healthy weight, you would have to eat an extra 3500 calories per day (5500 calories total!) to gain one pound a day. It’s very unlikely that you’ll eat that much or that you’ll gain that much weight that fast.

NOTE: It’s important to realize that your weight may fluctuate 1 or 2 pounds each day depending on when you weigh yourself. Whether or not you’ve just eaten, drank something, or gone to the bathroom can cause your scale reading to fluctuate. But this does NOT mean that you have gained or lost 1-2 pounds of FAT each day. The weight change is simply due to normal shifts in fluid levels and digestive tract contents. Don’t let the scale numbers scare you.

To gain one pound a week (which is much more realistic), you would have to continuously eat an extra 500 calories per day for 7 days. So, for a person whose maintenance needs are 2000 calories per day, that’s 2500 calories per day for weight gain.

NOTE: If you have been eating a very restrictive diet for a while, and you have lost a lot of weight, your metabolism may become revved up (above normal) when you initially increase your calorie intake. Because of this, it may take many more extra calories before you see a healthy gain in weight. As your weight gets closer to a healthy level, and as your body becomes more accustomed to the more normal calorie intake, your metabolism will return to normal and you won’t have to eat as many calories.
**But, whenever I eat more, I can see my stomach getting fatter!**

When you first start eating more, your stomach may appear more distended, but it is NOT fatter. Your stomach may be distended because...

- There is more food in it (but it settles once the food has been digested).
- You are retaining a little water (but that goes away after your body adjusts to the new eating routine).
- You are constipated (but as your digestive tract gets used to processing more food again, it will speed up and your bowel movements will normalize).

### Positive Steps For Change

1. **Discover what purpose restrictive eating and dieting is serving in your life. Is it your way of asserting control?** Dealing with an underlying anxiety disorder? Boosting a damaged self-esteem? There are many reasons why people develop disordered eating behaviors. Take advantage of the caring and confidential counseling services on campus to help you make this self-discovery.

2. **De-code your “fat feelings.”** When you say you are feeling fat, is there a feeling underneath? Are you feeling insecure, sad, overwhelmed...? Learn how to express your emotions without abusing food or your body. Use the Eating Awareness Journal to help you.

3. **Determine what weight is a healthy weight for YOU.** Each one of us has a healthy weight based on our genetics, muscle mass, and body type. Being under your healthy weight is just as damaging to your health as being above your healthy weight. Sometimes it’s hard to accept the weight that is healthy for you (especially with the media’s ideal body in mind). But, learning to love your body is key to treating it with the respect and care it deserves.

4. **Learn the basics of good nutrition so you can fuel your body with optimal energy and nutrients.** After months (or years) of restrictive dieting, you may not know what normal eating looks and feels like. And, you may be scared to adjust your eating plan on your own. Seek the guidance and support of a Registered Dietitian to help you.

5. **Take baby steps towards your goals, and be patient with your progress.** If you have learned that your body needs about 1800 calories per day (but you are only eating 1000), start by trying to add 200 calories to your usual plan. Start by adding more foods you are comfortable eating, and then gradually challenge yourself by adding some of the “forbidden” foods you have previously avoided. No food needs to be strictly forbidden. Balance and moderation are key to health and happiness. Email your instructor if you need help or advice.
6. **Listen to your self-talk.** That “little voice” in your head is your self-talk. Positive (or negative) self-talk can be very powerful. If you go into an exam, thinking “I can do this. I’m totally prepared. I’m going to ace this thing!” you’re far more likely to be successful than if you go in, worrying “I’m not ready for this. I’m going to fail.” In addition to affecting your academic performance, self-talk influences your athletic performance, your ability to overcome personal crises, and your eating behaviors.
Emotional Overeating: (Optional)
Battling the Binge & Stopping the Cycle

Brian is a grad student struggling to complete his dissertation. But, there just doesn’t seem to be enough hours in the day. In addition to taking his last two required academic classes, he is working as a TA for his department, holds an additional part-time job 20 hours per week, and has to commute to UCLA from Long Beach. To make matters worse, he is not getting along with his academic advisor and his girlfriend just broke up with him because he wasn’t spending enough time with her. Prior to grad school, Brian was really active and fit, and he followed a very regimented healthy eating plan. Now, however, it has become increasingly difficult for him to find the time to work-out and to eat regular, balanced meals, and this really bothers him. Exhausted, overwhelmed, depressed, and lonely, Brian often gets home and goes directly to the refrigerator. He polishes off the remaining half of his roommate’s extra large pizza, ½ box of cookies, an entire bag of chips, and a pint of Ben & Jerry’s ice cream. Later that night, still disgusted with all the junk he has eaten and terrified that it will turn into fat while he sleeps, Brian goes out for a 2-hour run to burn off the extra calories. He promises himself that he will never let his eating get out of control again. Brian is suffering from emotional overeating.

Negative Effects of Binge Eating
It’s normal (and healthy) to sometimes eat for emotional reasons. For instance, we may eat certain foods to help us celebrate holidays and other special events. These foods carry deep cultural, religious, or familial meanings; and eating them makes us feel happy. In addition, we may eat certain foods to comfort us in times of sickness or temperature extremes (i.e. chicken noodle soup when we’re sick, hot chocolate when we’re shivering from the cold, and a cool frozen treat when the temperatures are soaring).

But it is NOT healthy when food becomes our main source of relief when we are feeling stressed, depressed, and overwhelmed; and our eating becomes out of control as we desperately attempt to stuff down all our negative emotions and/or numb all our uncomfortable feelings. Consider all the negative unhealthy effects that may result.

Emotional consequences
Probably the most significant negative health effect that results from this type of eating behavior is the extreme guilt, self-loathing, disgust, anxiety, and depression that may come after the overeating episode. Often, these feelings are so extreme that you feel paralyzed from doing anything (i.e. you can’t study, you can’t work, you can’t play). And, you may also isolate yourself from family, friends, and romantic partners—the very people you need most to feel better.
**Behavioral consequences**
As a result of the extreme guilt and anxiety, you may take desperate measures to get rid of the extra calories you just consumed (i.e. vomiting, using laxatives, diuretics or diet pills, exercising excessively, and/or fasting or very restrictive dieting to compensate). Not only are these measures NOT effective, but they also carry significant health consequences.

**Self-induced vomiting** does not get rid of all the calories just consumed. In fact, an after-binge vomiting episode retains approximately 1200 of the calories consumed. Much of the weight loss is due to fluid losses, not fat losses. Vomiting can also result in acid/base and electrolyte imbalances in the blood, which can be fatal. And, the stomach acid that comes up with vomiting causes tears in the esophagus, stomach ulcers, gastrointestinal bleeding, and severe tooth decay.

**Laxatives** act on the large intestine (after food calories have already been absorbed) and cause increased water weight loss through more frequent/watery bowel movements--not fat loss! At most, there is only a 12% reduction in calories consumed. Most calories are already absorbed by the time they reach the large intestine. Over time, you can become dependent on laxatives to have a bowel movement at all.

**Diuretics** act on the kidneys and cause increased water weight loss through urination. They have NO effect on food calories or fat loss. They do, however, cause dehydration and electrolyte imbalances (such as low blood potassium levels), which can lead to an irregular heart beat and death.

**Over-the-counter diet pills** may work to suppress appetite temporarily, increase metabolic rate slightly, and/or induce a laxative effect (which causes fluid, not fat, loss). But, many of these products contain ephedra (ma huang), which can cause serious problems such as increased blood pressure, arrhythmias (heart rate irregularities), insomnia, nervousness (anxiety), tremors, headaches, seizures, heart attacks, strokes, and even death! While the ads for these products boast impressive results, in reality, their effect on weight loss is relatively minor. There is no magical pill that can shed pounds without some life-long adjustments in eating and activity patterns.

**Excessive exercise** can cause overuse injuries (like stress fractures), fatigue, sleep disturbances, reduction of sex hormones, and in women, cessation of menses (which contributes to bone loss, osteoporosis, and infertility). Further, too much exercise can actually prevent fitness gains. For example, if you don’t give your muscles adequate time to recover between resistance training sessions, they can’t rebuild and grow.

**Fasting and restrictive eating** results in depressed metabolic rate, loss of more lean body mass vs. fat tissue, multiple nutrient deficiencies, constipation, lightheadedness, fatigue, depression, and in women, cessation of menses (which contributes to bone loss, osteoporosis, and infertility). Further, restrictive eating greatly increases your risk for another binge eating episode.

**Physical consequences**
Eating large amounts of food very quickly at one time may cause abdominal pain and upset, extremely high blood sugar and insulin levels (which can make you feel dizzy and nauseous), and extreme tiredness (so all you can do is “sleep it off”). Certainly, these physical affects are going to interfere with your studies and your social life.
Further, repeated episodes of binge eating will eventually result in weight gain. If you are underweight due to restrictive eating in the past, the weight gain may be necessary to restore your health. In fact, in this case, the binge eating episodes may be a natural and necessary physiological response to your starvation (and once your weight and eating are restored, you may find that the binge eating stops). However, if you are gaining excessive weight and become obese, you are increasing your risk for a number of medical problems, including high blood pressure, heart disease, gall bladder disease, insulin resistance and type 2 diabetes, joint problems, osteoarthritis, and sleep disorders.

**Why can’t I just stop?**

You may feel like you should be able to control your eating and that you should have greater self-discipline to stick to your diet. But, it’s not that simple. It’s not your fault! There are many strong physiological and psychological triggers that may be contributing to your binge eating episodes. Discovering what your triggers are is the first step to overcoming them.

**Physiological triggers**

There are many physiological triggers that may cause you to overeat:

**Inadequate calorie intake during the day:** Whether you are intentionally restricting your intake during the day (for weight control) or unintentionally skipping meals/snacks (due to time constraints), inadequate calories during the day can result in overeating later.

NOTE: Many students claim that they don’t feel hungry during the day. This may be because of the stress hormones that are released when your body is starving (which temporarily raise blood sugar and suppresses appetite). Or, it may be that you are so preoccupied with what you’re doing that you don’t pay attention to your body’s signals. Or, it could be that your body has simply adapted to functioning with less fuel. In any case, while you may not feel hungry, your body knows when it’s been in a calorie deficit, and it remembers. Be sure to eat every 3-5 hours to avoid getting overly hungry.

**Excessive exercise:** You don’t seem to be restricting your calorie intake. After all, you’re eating just as much as your friends are. But, if you are exercising very intensely (for an hour or more) on most days of the week, your calorie needs are far higher than your friends,’ and your body knows it! Without extra calories on a daily basis to cover your higher daily energy demands, it’s very likely that you will eventually have a binge eating episode.

**Inadequate protein and/or fat intake with meals or snacks:** Protein and fat take longer to be digested and absorbed than carbohydrate, so you feel full longer after you eat them. In addition, both protein and fat trigger the satiety (or fullness) center in your brain, whereas carbohydrate tends to raise levels of hormones and brain chemicals (like insulin and neuropeptide Y, respectively) that are associated with food cravings. If you are just eating carbohydrate rich foods alone at meals and snacks, without some protein and fat along with it, you are more likely to have food cravings.
(especially for more carbohydrate and sugar) later on in the day. Have you ever heard it said that “the more sugar you eat, the more sugar you want.” It’s true! Of course, not everyone experiences increased sugar cravings and appetite after eating carbohydrate foods alone. And not all carbohydrate foods affect cravings and appetite the same. But, it’s worth considering. How long do you stay full after eating each of the following afternoon snacks?

<table>
<thead>
<tr>
<th>Snack</th>
<th>Calories</th>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) 1.5 cup fat free frozen yogurt</td>
<td>About 300</td>
<td>Mostly low fiber carbohydrate (51 g)</td>
</tr>
<tr>
<td>2) 1 cup Edamame (boiled soybeans)</td>
<td>About 300</td>
<td>Good mix: 30 g protein + 18 g carbohydrate (high fiber) + 16 g fat</td>
</tr>
<tr>
<td>1) 4 Snackwell Fat Free Cookies</td>
<td>About 200</td>
<td>Mostly low fiber carbohydrate (48 g)</td>
</tr>
<tr>
<td>2) 1 slice whole wheat bread with 1 Tbsp. peanut butter</td>
<td>About 200</td>
<td>Good mix: 18 g carbohydrate (high fiber) + 8 g fat + 6 g protein</td>
</tr>
<tr>
<td>1) 40 small jelly beans</td>
<td>About 160</td>
<td>Mostly low fiber carbohydrate (40 g)</td>
</tr>
<tr>
<td>2) 1 oz string cheese with 1 whole apple</td>
<td>About 160</td>
<td>Good mix: 21 g carbohydrate (high fiber) + 8 g protein + 5 g fat</td>
</tr>
</tbody>
</table>

**Inadequate sleep**: Most people need somewhere between 7 and 8 hours of sleep every night. If your body is chronically sleep-deprived, your levels of cortisol (a stress hormone) will be elevated throughout the day. High cortisol levels are associated with increased appetite and increased cravings (especially for sugary or starchy foods). In addition, without adequate rest, you may be more inclined to eat to keep yourself awake.

**Some disease states and medications**: Many medications and some disease states cause increased appetite as a side effect. It’s a good idea to discuss any changes in appetite with a qualified health professional so that he/she can rule out medical or pharmacological causes to overeating.

**Psychological triggers**
While the physiological triggers are relatively easy to manage, the psychological triggers are much more difficult to overcome. These triggers are grounded in deeply held beliefs about food and eating, as well as firmly established learned responses to various situations and emotional states.

“**Good food-bad food**” mentality: When you think of “good foods,” what foods come to mind? Perhaps you think of vegetables, fruits, and very lean protein-rich foods. What about “bad foods?”
Everything with fat in it, right? (fried foods, pizza, chips, cookies, and chocolate...) Or maybe it’s anything with too many carbs in it (like bread, pasta, and potatoes). Where did these “good food-bad food” labels come from? Perhaps they came from a recent diet book you read, or from a friend, or from what your parents always told you while you were growing up. It’s true that some foods have a stronger nutritional profile than other foods, but no food is inherently “good” or “bad.” It’s your overall diet that may be good or bad based on how you balance your food choices throughout the day.

For instance, a diet which consists of only fruits and vegetables is NOT a good diet. The problem is the lack of balance. Fruits and vegetables are excellent sources of fiber, vitamins A and C, folate, and potassium. But, they lack protein, many of the B vitamins, vitamins E and D, calcium, iron, zinc, and the essential fatty acids. Similarly, a diet which consists of only high fat, fast food “value meals” three times a day is not a good diet. This diet would be too high in saturated fat and sodium and terribly lacking in fiber as well as many other important nutrients. On the other hand, if you had one high fat fast food meal at lunch and balanced it out with a high fiber, low fat breakfast and dinner, your overall eating plan would look quite good.

There are two problems with labeling foods in such “black or white” categories. First, there’s no flexibility. It’s all or nothing! “If I eat one piece of cheesecake, I’m a complete failure and I’ve completely blown my diet. So I might as well eat the entire cheesecake now and start over tomorrow.” Second, there’s too much restriction. And, whenever something is off limits or forbidden, we tend to want it more. For instance, children whose parents strictly prohibit them from eating sweets and treats are much more likely to binge on these foods when they are away from their parents (like when they start college for the first time).

**Learned responses to uncomfortable feelings:** Throughout our life, we are conditioned to turn to food for security, comfort, and pleasure. As babies, the most powerful comforter when we were distressed was our mother’s milk. As toddlers, we were offered cookies and milk when we fell in the playground and got hurt. Throughout our school years, we were rewarded with sweet treats when we brought home good grades and punished for bad behavior by being sent to our rooms without dessert. It’s little wonder that as college students, food becomes a tranquilizer when we’re anxious and stressed out, a mood elevator when we’re depressed, a comforter when we’re lonely, a reward when we’ve had a hard day, and an entertainer when we are bored. We learn to cope with uncomfortable feelings by stuffing them all down with food. Like alcohol and drugs, food becomes a temporary escape.
REMEMBER THE 5 D’S

DELAY your response so you can figure out what exactly is tempting you to binge.

DETERMINE what’s going on. Ask yourself, “Why is my desire to eat so high right now? Am I physically hungry? If not, “what do I really want or need?”

DISTRACT yourself for 10 minutes (WAIT).

DISTANCE yourself, physically, from the temptation.

DECIDE how you will handle it.
- If you’re tired, take a nap. If you’re feeling lonely, call a friend. If you’re feeling anxious, go for a walk or take a bubble bath.
- If you’re having a specific food craving, identify what you really want, go get a single portion, and enjoy it without guilt!