

## Session 7: Tip the Calorie Balance.

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### Objectives:

In this session, the participant will:

- Discuss how healthy eating and being active are related in terms of calorie balance.
- Discuss how calorie balance relates to weight loss.
- Review the participant's progress so far in terms of a) changes made in fat/calorie intake and activity, and b) weight change. Discuss how this relates to calorie balance.
- Develop an activity plan for the coming week (120 minutes per week).
- If weight loss is less than what is expected, make a plan for the coming week to either self-monitor calories or follow a low-calorie meal plan, or both.

### To Do Before the Session

Review some of the participant's past Keeping Track records. Make brief notes of some of the positive changes the participant has made to eat less fat and be more active.

For participants who have not lost weight as expected or have gained weight:

- Determine the participant's daily calorie goal (refer to participant handout Session 2, page 4).

Make sure the participant's How Am I Doing? graphs for weight and activity are up to date.

Have materials ready:

- New Keeping Track book and last sessions book in which you've made comments.
- Pages for Session 7 participant notebook.
- To record participant weight, Lifestyle Balance Update for each participant and or Group Session Update log begun at Session 1.
- Meal plans appropriate for the participant's calorie goal if participant's are not on track to reach weight loss goal. Tailor to the participant's food preferences as much as possible before the session. See toolbox.

**Weigh the participant. Graph.**

**Receive and review Keeping Track records. Discuss successes and difficulties in meeting the study goals. Review the last session, including home activities. Graph activity.**

Did you have any trouble Keeping Track last week? Were you able to stay under your fat gram budget? Reach your goal for physical activity? (Graph activity.)

Were you able to get rid of the problem food cue and add the positive cue for being more active? What problems did you have? What could you do differently next week? Praise all progress, no matter how small. Discuss barriers and problem solve with the participant.

**Explain how healthy eating and being active are related in terms of calorie balance.**

Everything we've covered so far fits together. It fits together because of what's called the "calorie balance." That's what we'll talk about today.

We've said many times that the Lifestyle Balance Program involves **two kinds of lifestyle changes:**

1. Healthy eating. This includes eating less fat and more grains, vegetables, and fruits, and
2. Being active.

These changes are important in and of themselves. They may prevent diabetes and lower your risk of other diseases. They are also important because they're **both related to weight loss** and that's because of what's called "**calorie balance.**"

Calorie balance is the balance between the calories (or energy) you take in by eating and the calories (or energy) you use up by being active.

When you eat **food**, you take in calories or energy.

- Calories in food come from **fat, carbohydrates (starches, sugar), protein, or alcohol.** Other ingredients in food, like vitamins, minerals, and fiber, don't have calories. (For example, green leafy vegetables are mostly vitamins, minerals, and fiber--and they have very few calories).
- The **number of calories in any food you eat depends on what's in that food. Fat is the most concentrated in calories, with 9 calories per gram.** That's more than twice the number of calories in starches, sugars, or proteins, and even more than alcohol. So foods that are high in fat are high in calories. That's one

important reason why our emphasis has been on eating less fat.

For example, many people think of meats as being “pure protein” but actually most meats contain protein plus a lot of fat, which is where most of the calories in meats come from.

Calories also measure the energy you **use up**.

- You use calories **for just staying alive** (like breathing) and **by any activity** you do.
- The **number of calories you use** in a certain activity depends on several things, including the type of activity, the amount of time you are active, and how much you weigh (basically, the amount of energy used is determined by the amount of weight carried and the distance over which you carry it. When you walk a mile, for example, you are carrying a lot of weight (your body) over a long distance (1 mile).
- In general, a good **rule of thumb** to remember is that **1 mile of brisk walking (which takes most people about 15 to 20 minutes) uses about 100 calories.** This is a rough estimate.

Note: This rule of thumb is based on a 160-pound person and is only a rough estimate of any one participant's caloric expenditure.

If the participant is doing a different type of planned activity, check with the exercise physiologist on staff to convert minutes or distance into calories.

### **Explain how calorie balance is related to weight loss.**

Your **weight** is determined by the **balance between food (calories in) and activity (calories out)**.

Let's look at four ways the calorie balance can work.

1. Your weight can **stay the same**. In this case, "calories in" from food equal "calories out" from activity. Food and activity are at about the same level on both sides of the scale.
2. Second, you can **gain weight**. In this case, "calories in" from food are higher than "calories out" from activity. Either calories have increased or activity has decreased or both. The balance has tipped this way [*indicate direction of balance*].

3. Third, you can **lose weight**. "Calories in" from food are lighter than "calories out" from activity. You've eaten less food (by less I mean fewer calories, not less in volume--remember, we said early in the program that you can actually eat more food for the same number of calories by eating lower-fat foods), or you've done more activity, or both. The best way to lose weight is to do **both** at the same time and **really tip the balance** this way [*indicate direction*].
4. And finally, you can reach a **new balance at a new weight**. You have developed new food habits and new activity habits and they are balanced again. This is what happens when you lose weight and keep it off. You've reached a new balance over time.

The important thing to **remember** is that:

- **Food and activity work together** to determine how much you weigh.
- To lose weight, it's **best to eat less and be more active**.  
That way, you are changing both sides of the energy balance at once.  
**By TIPPING the balance, you can lose the weight you want.**
- Then, over time, you can reach a new balance at a new, lower weight. We will help you to **make the changes part of your lifestyle, so you will keep the weight off**.

### **Explain calorie requirements for weight loss.**

**How much do you need to tip the balance** in order to lose weight?

The number of calories you need to eat, or the amount of activity you need to do, varies from person to person. But in general, there is a formula we can use. It's based on two facts:

- **1 pound of body fat stores about 3,500 calories**, and
- **Slow, steady weight loss (1 to 2 pounds or so a week) is the best way to lose body fat**. (Quick losses of large amounts of weight can mean that water or muscle are being lost rather than fat, and that's unhealthy.)

**So to lose 1 pound in a week, you need to tip your energy balance by 3,500 calories** in the week. Or 500 calories each day for 7 days. Or to lose 1-1/2 pounds in a week, you need to tip your energy balance by 5,250 calories in the week. Or 750 calories each day for 7 days. For a 2-pound weight loss per week, you need to tip the balance by 7,000 calories in the week, or 1,000 per day.

Again, for weight loss, the best way to tip the balance is to change both food **and** activity.

**Review the participant's progress so far in terms of a) changes made in fat/calorie intake and activity, and b) weight change. Discuss how this relates to calorie balance.**

Now let's take a minute to review some of the **changes you've made so far** on both sides of the balance.

- First, **what changes have you made to be more active?** We've talked about increasing both planned activity, the kind you've been recording in your Keeping Track books, and lifestyle activity, like taking the stairs instead of an elevator.

Briefly record on the work sheet some of the changes made by the participant. Praise and encourage the maintenance of these changes.

- **What changes have you made to eat less fat (and fewer calories)?** We've focused on eating less fat because fat is the most concentrated source of calories.

Briefly record on the work sheet some of the changes made by the participant. Praise and encourage the maintenance of these changes.

### **Have these changes tipped the calorie balance?**

The answer is in how the scale has responded.

- At the **start of the Lifestyle Balance program, you weighed ...** (*refer to the How Am I Doing? graph for weight at randomization visit and record that weight on the work sheet*).
- **Your weight now is...** (record on work sheet).
- **And we expected your weight by this time would be ...** (*record the weight indicated on the graph by the expected weight loss line at this week*).

### **So you have ...**

Check one of the three boxes on the work sheet. Be as positive as possible, stressing the accomplishments the participant has made so far, no matter how small, and express your confidence in the participant's future success.

- Stayed at the same weight, or gained weight.**
  - To lose weight, you need to try something else to tip the calorie balance. We'll work together to find out what will work better for you.

- Lost some weight, but not as much as expected.**
  - Good. You've made some progress.
  - To lose more weight, you need to try something else to tip the calorie balance *further*.
  
- Lost as much weight as expected (or more).**
  - Great! You've tipped the calorie balance.
  - If you keep tipping the balance, you will keep losing weight.

**Develop an activity plan for the coming week.**

For next week:

- Continue to keep track of your weight, eating, and activity.  
Be active for \_\_\_\_\_ .

Fill in the blank on the work sheet, depending on how active the participant has been until this point. For most participants the goal should be **120 minutes** per week.

By doing more activity, you will use more calories.

As before, try setting aside one block of time each day, or look for 10 to 15 minutes that open up during the day and use them to be active. Include the Lifestyle Balance activity sessions. And plan other activities you LIKE to do. *[Complete the chart.]*

- **Make active lifestyle choices throughout the day.** As we've said before, every minute of activity is helpful. Standing uses more calories than sitting; walking uses more calories than standing; and so on. So keep moving as much as you can.

What are some of the active choices you plan to make this week? *[Fill in the blank.]*

**If weight loss has not been as expected, make a plan for the coming week to either self-monitor calories or follow a low-calorie meal plan, or both.**

The following is a requirement for participants who have not lost as much weight as expected. It is an option for successful participants who want to lose more weight or express an interest in learning more about the calorie content of foods.

- **And to tip the calorie balance further, one of two things will be helpful:**

**Keep track of calories every day, just like you've done for fat grams.**

Sometimes it isn't enough to just look at fat grams. You may be eating some foods that are relatively low in fat but still high in calories. (For example, many of the new fat-free frozen desserts and cookies are just as high (or higher) in calories than the original versions because of added sugar.) Or you may be eating large enough portions of some foods that the calories are adding up. By keeping track of calories, you'll learn which foods are highest in calories and find ways to save calories. So this week, we want you to look up the calories in every food you eat, just like you've been looking up the fat grams.

**Try to stay under \_\_\_\_\_ calories each day.** You should lose weight if you eat that number of calories. Also,

- Watch out for the foods that are high in calories.
- Be sure to record *everything*.
- And watch portion sizes.

Or it might be most helpful for you to:

**Follow a meal plan for \_\_\_\_\_ calories per day.**

A meal plan is a model or good example of what to eat. A meal plan will:

- **Show you exactly what foods and amounts to eat.** You won't be faced with a lot of decisions and temptations about food.
- A meal plan will also **make it easier for you to record what you eat.** In fact, if you follow the meal plan *exactly*, you won't need to record anything.

Which do you think would be most helpful, keeping track of calories or following a meal plan? Or would you like to try both?

Check the box or boxes on the work sheet.

- If applicable, give the participant the appropriate meal plans. Tailor the meal plan to suit the participant's food preferences, and answer any questions or concerns the participant has regarding following the meal plans as closely as possible for the coming week. Present the meal plan as a flexible model from which the participant can develop an individualized eating style, rather than as a rigid prescription. (See How to Use the Lifestyle Balance Meal Plans for further information on how to introduce the meal plans to participants.)
- With some participants, you may need to practice calorie monitoring using an example and/or briefly double-check and correct portion estimation skills using food models.

For the rest of the study, we'll keep working together to bring you closer to your weight loss and activity goals. **We'll keep trying to tip the calorie balance and see how the scales respond.** Over time, you'll reach a new balance at your goal weight and then we'll work together to help you maintain that weight.

**Note: The following explanation is for only those participants who express interest in how their calorie goal has been calculated. Do not give this text to participants.**

*Question:* How did you determine the number of calories I should be eating to lose weight?

*Answer:* The number of calories you need for weight loss depends on many things, including how active you are, how old you are, and so on. But we can make a good guess and then see how the scale responds. We like to begin by estimating what you ate when you entered the program.

1. Estimate of what you ate when you started:  
Starting weight x 12 = \_\_\_\_\_ calories/day (estimate)
2. A slow, steady weight loss of 1 to 2 pounds per week is the best goal.
  - To lose 1 pound, you must eat 3,500 calories less. If you want to lose 1 pound in 1 week, you would need to eat 500 fewer calories each day for 7 days.
  - To lose 2 pounds, you must eat 7,000 calories less. If you want to lose 2 pounds in 1 week, you would need to eat 1,000 fewer calories each day for 7 days.We recommend that heavier people aim to lose 2 pounds per week, and that thinner people lose 1 pound per week. No one should eat fewer than 1,000 calories/day.
3. Estimated calories at start: \_\_\_\_\_ calories/day for maintenance  
To lose 1 pound per week, subtract 500 to get \_\_\_\_\_ calories/day.  
To lose 2 pounds per week, subtract 1000 to get \_\_\_\_\_ calories/day.
4. So your daily calorie goal for weight loss is \_\_\_\_\_.

Any questions?

Collect completed Keeping Track book from last session and review and make comments in the Keeping Track book before the next session.