


# Using Biometric Weight Manager


Version 2.0.0.6a

## Installation Procedure

- Launch the Palm Installation tool on your computer.
  1. Click the **ADD** button, and select the **BWMINSTALLER.PRC** file to install into your Palm device.
  2. Perform HotSync to install the application from your desktop onto your Palm device.
  3. If the BWMInstaller (self-extracted installer) did not started automatically after HotSync completion - from the main Applications screen, locate and tap on **BWMINSTALLER** icon.
- Locate and tap on  BWM icon to launch the application when extraction process is completed.

Refer to the User Manual of the Palm Desktop for the detailed description on the installation tool usage.

## Upgrade Procedure

- Click the **ADD** button, and select the **BWMUPDATE.PRC** file.
- Perform HotSync to install the application from your desktop onto your Palm device.
- Locate and tap on  BWM icon to launch the application when HotSync process is completed.

**Note:** For low-resolution edition, file names are BWMInstallerLR.prc and BWMUpdateLR.prc

## Supported Platform

Palm OS version 5.0 or higher.

There are two version of BWM available:

### **BWM** (high-resolution edition)

Palm device must have double density color screen 320x320 (i.e. Tungsten T|2|3|5, Tungsten E, Tungsten E2, Tungsten C, TREO 650, Zire 71, Zire 72 etc.).

### **BWM** (low-resolution edition)

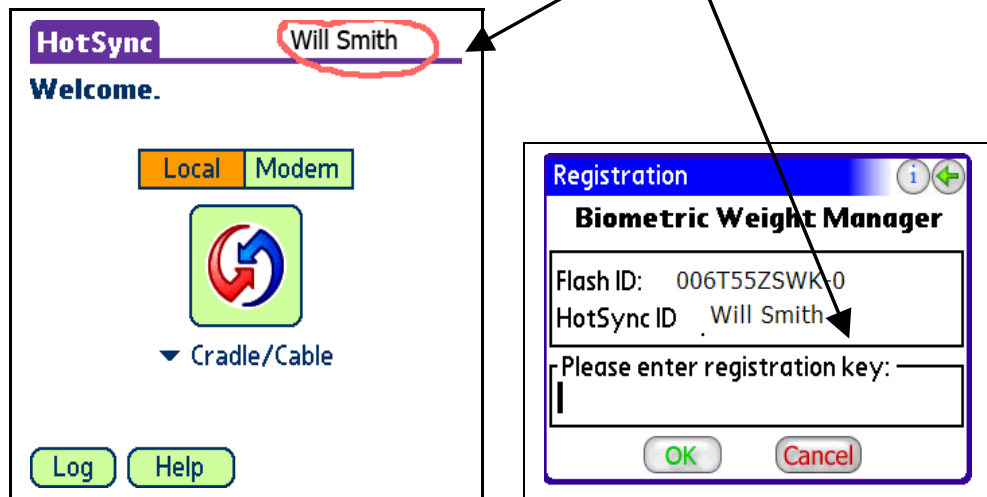
Palm device must have color screen 160x160 (i.e. TREO 600, Zire 31 etc.) .

## Registration

The registration process includes three steps:

1. Purchase via online store.
2. If you have not received registration key after purchasing send the request e-mail to <mailto:support@bioweblogic.com>, please use the registration file Readme.txt. Provide HotSync User ID. After the payment is received, the registration key will be generated and sent to you.

To locate your HotSync User ID, do the following on your Palm OS handheld:  
From the main Applications screen, locate and tap on the HotSync icon.  
Note the name at the upper right - that is your HotSync User ID.

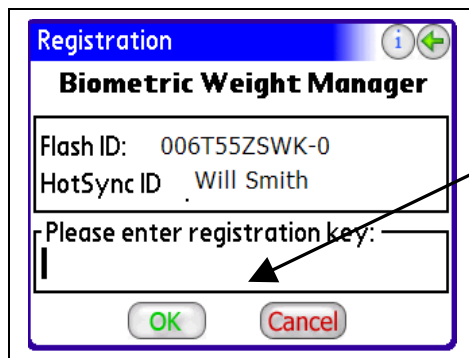


In this case, HotSyncID is “Will Smith”.

Alternatively, you may locate it within the Palm Desktop software at the upper right hand corner of the Palm Desktop to the right of User ID.

Please note that the HotSync User ID is case and punctuation sensitive

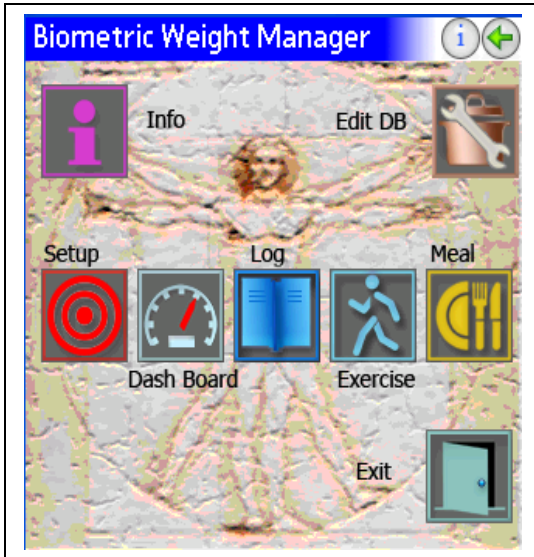
3. After you have received your registration key, use the registration form to enter it.



**Note:** The trial version of BWM is a free update for registered users. Download and install over the old version.

## Main Screen

This is the starting point of the BWM application. To perform desired operations tap the appropriate icon on the **MAIN SCREEN**.



«**Info**» - helpful information about Dieting, BMR calculation and using this application



«**Setup**» - enter your Personal information and establish the **Goal**. You cannot open **Dashboard** or **Log** without completing this form.



«**Dashboard**» - opens Dashboard where you can check the current calories balance and the **Goal** status. This form also has some useful navigation buttons. You cannot open Dashboard if the **Personal information** is not completed and **Goal** is not established.



«**Log**» - brings you to Log Form that shows historical data. It has a number of navigation links too.



«**Exercise**» - switches to the **Exercise Form** where you can enter new, change or delete any of the existing exercise daily records.



«**Meal**» - opens the **Meal Form**, which allows entering new, change or deleting any record in the daily meal list.



<<**Edit DB**>> edit local food or exercise database. Add new or custom food and exercise items.



«Exit»– Close the BWM application.



## Getting started

Before you begin to use Biometric Weight Manager on a daily basis, you must perform a few procedures first:

- Please check [helpful weight management information](#), information about BMR (Basal Metabolic Rate), and calories calculation by tapping the «Info» Icon at the upper-left corner of the MAIN SCREEN. Please read our Disclaimer and Licensing Information.
- Enter your personal information using the «Personal» tab of the SETUP SCREEN:
  1. Name
  2. Age
  3. Preferable units system ( US, Metric )
  4. Height
  5. Gender
  6. Activity Level (default)

A screenshot of the 'Setup' screen in the Biometric Weight Manager application. The screen has a blue header with the word 'Setup' and an information icon. Below the header are three tabs: 'Personal', 'Goal', and 'Nutrient Goal'. The 'Personal' tab is selected. The form contains the following fields: 'Name: Nick', 'Age: 40', 'Units: Metric(cm-kg) (unchecked) and lbs-inches (checked)', 'Height: 5 ft 9 in', 'Gender: Male (selected) and Female', and 'Activity Level: Lightly active' with a dropdown arrow. At the bottom are 'OK' and 'Cancel' buttons.

- Adjust your default activity level using «Activity Level» button. Do not use this option as a way to compensate for exercising during the day. BWM provides another way of doing it.
- Set your goal using the «Goal» tab :
  1. Start Weight that is your current weight
  2. Desired goal weight
  3. Start and End Date accordingly
  4. Confirm your Goal using «Update» button on this page. Check and verify helpful information about your goal displayed after you have clicked on this button.

Check what is your “Ideal” weight might be. The calculation is based body mass index (BMI) procedure.

Confirm your Goal using «Update» button on this page.  
Check helpful information about your plan after you clicked this button.

- Specify nutrient targets using “*Nutrient Goal*” tab if you want, select a diet plan or input your own custom plan and corresponding nutrient percentages. The values represent the percent of calories from each nutrient. BWM tracks the three nutrients that contribute to total calories of a food item: carbohydrates, protein, and fat.

- To complete Initial Setup press «**OK**» button at the bottom of this form. System will ask you to fill out empty or correct invalid fields.

## Daily Steps

Each day you should perform the following steps:

1. Input your weight and configure your BMR calculation based on activity level, excluding exercise using **WEIGHT & BMR SCREEN**.
2. Log the foods you eat using **MEAL FORM**.
3. Log the exercises and activities you perform each day using **EXERCISE FORM**.
4. Monitor your calories balance using **DASHBOARD FORM**.
5. Log notes into the journal.

This chart shows one of the possible scenarios:



1. Weighing in
2. Breakfast
3. Observe balance/budget using dashboard.
4. Lunch
5. Dinner/Snack
6. Check budget
7. Exercise if necessary.
8. Check results.

### Weighing In

The best time to update your weight is in the morning hours before breakfast. It is a good practice to weigh in at the same time every day and in the similar body conditions, either with similar clothing or without any. You may want to change your activity level by tapping the appropriate check box and see how your BMR affected by this change. Check the «*Save level as default*» check box if you want to change your default activity level.

**Note:** It is not allowed to save User Defined **BMR** default level.

Weight & BMR i ←

Thursday, March 04, 2004

<p><b>Weight (lb):</b>  <input type="text" value="222"/></p> <p><b>BMR:</b>  <input type="text" value="2935"/></p> <p style="font-size: small;">most professionals, office worker, shop worker, teacher, homemakers</p>	<p><b>Activity Level:</b></p> <p><input type="checkbox"/> User defined</p> <p><input type="checkbox"/> Sedentary (inactive)</p> <p><input checked="" type="checkbox"/> Lightly active</p> <p><input type="checkbox"/> Moderately active</p> <p><input type="checkbox"/> Very active</p> <p><input type="checkbox"/> Exceptionally active</p>
---	--


Save level as default

### Entering Meal


Every time you eat a food item, you should enter it into the daily meal list.

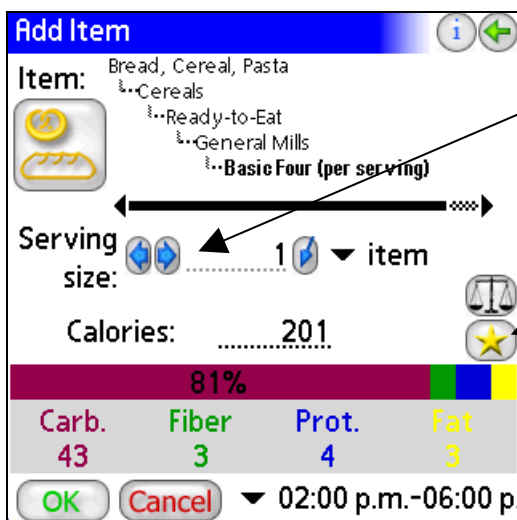
You can do it by going to **Meals Form** that is accessible from Main Screen, Dashboard and Log.



1. Tap on the  button




2. Select an item and tap on the 



You can change serving size.

Add this item to the favorites list.

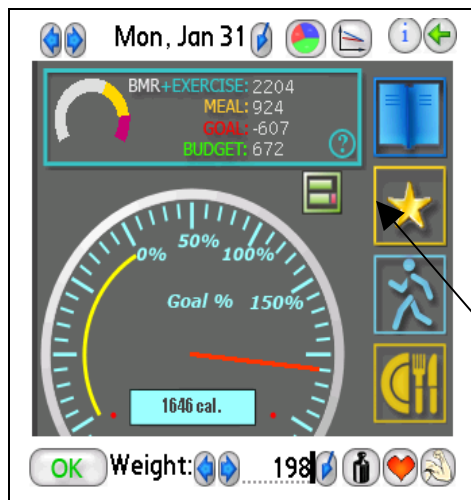
3. Tap on the  now you can see this item in daily meal list.



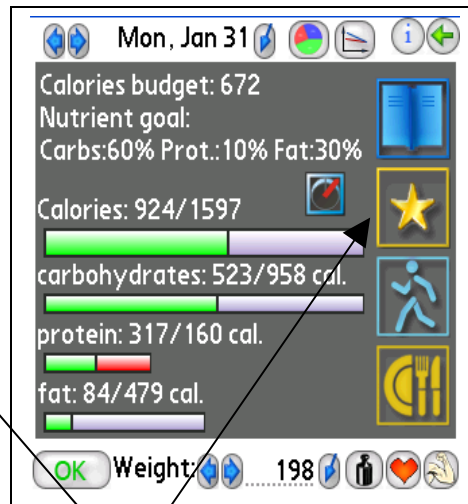
## Tracking Goal (Dashboard Form)

The **DASHBOARD** is a visual representation of calories and nutrients balances. It gives you an idea of where you are on the way towards the goals for the day in a visual form. This form has two view modes: **Speedometer view** and **Nutrient chart view**.

### Speedometer view mode



### Nutrient chart view mode



Switch view mode

**DASHBOARD** in Speedometer view mode is about the daily calories balance and the current **Goal** status. The idea is to have the «**Goal Arrow**» (Red Hand) close or above the **100%** by the end of each day. The calculation based on the formula:

$$\text{Goal percentage} = 100 * (\text{BMR} + \text{EXERCISE} - \text{MEALS}) / \text{GOAL}.$$

Thus if you have BMR = **2652** cal. and consumed about **1552** cal and your goal is to obtain deficit of **1100** cal. per day you are **100%** on track for today.

$$\text{Goal percentage} = 100 * (2652 - 1552 / 1100) = 100\%$$

If you will eat again and consume additional **200** cal from food than the meals is going to be **1752** cal than:

$$\text{Goal percentage} = 100 * (2652 - 1752 / 1100) = 81.8\%$$

In this case, you will achieve only ~**82%** of your daily goal by the end of the day; to go back on track you should have some exercise. Think about exercise like speeding up and food like slowing down. This **Goalpercentage** value does not have to be exact **100%** value it simple should stay in **85-115%** range most of the days. If you are not planning to have an exercise or other physical activity for today, you should not allow **Goalpercentage** to fall bellow **85-100%** Even if you missed your target yesterday, do not be upset, **BWM** will automatically recalculate **Goal** every new day based on the real body weight you have entered.

There are numbers of items that help you to comprehend the status:

- **Calorie Balance Information Frame** at the top of main panel has the following topics:
  - a) **BMR + EXERCISE** shows a number of calories you are going to burn by the end of the day based on your BMR and entered exercise workout.
  - b) **MEAL** displays a number of consumed (added) calories depends on what you have eaten today.
  - c) **GOAL** shows today's **Goal** value or calories deficit you should add to reach today's Goal.
  - d) **BUDGET** shows your meal calories budget for the day to keep the Goal at the 100% level. If it is negative, you are out of budget, so think about exercises to spend the equal calories.
  - e) **BALANCE CHART** – shows calories balance by parts (BMR, Exercise, Meal, and Goal).
- **Speedometer** at the main panel shows how far or close you are to the day Goal in percents. In other words, it is your speed of going to the **Goal**.
- **Odometer** shows amount of calories you have burned up to this moment from midnight.

“**Nutrient chart view**” mode is available when you have Nutritional Goal established (see setup form). You can track total calories and calories divided per carbohydrates, protein and fat in this mode. Nutrient targets are calculated from the percentages specified as part of the diet plan you selected in the Nutrient Goals setup. Do not consume more calories than your food budget allows or you will not achieve your weight loss goals.



This example screen shows that total calories consumed from food are 1092 and it is limited to 2010 for the day. Notice that amount of calories contributed by protein is over the limit (318/201).

#### ***Dashboard Navigation Icons and Buttons:***



«**Meal**» brings you to the MEAL EDIT SCREEN to add, change, and delete the daily food records



«**Exercise**» brings you to the EXERCISE EDITS SCREEN to add, change, and delete the daily exercise records



«**Log**» brings you to the LOG SCREEN



«**Favorites**» shows favorite food items which you may want to select straightway.



«**Switch view mode**» Switches between dashboard views.



«**Nutrient Breakdowns**» Button opens NUTRIENT BREAKDOWNS.



«**Weight Progress Graph**» Button shows you WEIGHT PROGRESS GRAPH.



«**Weight**» Button opens WEIGHT & BMR screen for editing weight and activity level.



«**Blood pressure** » Button opens form where you can register your blood pressure.



«**Body measurements** » Button – to register your body measurements: Chest size, waist or your own custom measure.


«**Weight**» is a field at the bottom of this form that allows you to change the start daily weight entered in the WEIGHT & BMR form previously

«Date» field on top of the screen allows you to view the **DASHBOARD** for any day the past.



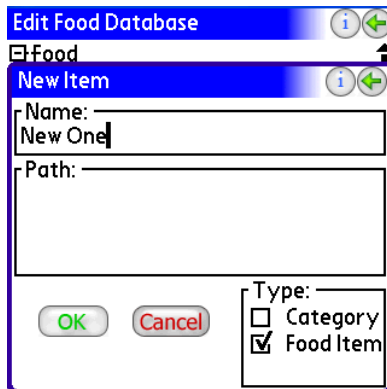
## Editing Food/Exercise Database

BWM allows you to add your own categories and items to the database or modify and delete any item you wish. The food and exercise database is fully customizable.

- On Main Screen locate and tap the “**Edit DB**” icon 
- On next screen, select which database you want to edit.
- On next form, you will see existing food tree. Select the category you wish to edit. If you are creating new item (leaf) or category (folder) - tap on “**New**” button.



- At the next dialog, select appropriate checkbox - “**Category**” or “**Food Item**”. If you are creating new item select “**Food Item**”. Enter the desired name – “New One”.



- On the next form, enter nutritional values that you obtained from other sources. If you do not know calorie value it will automatically calculated for you. Tap on “**OK**” button

- To save the new item tap on **“Save”** on next form.

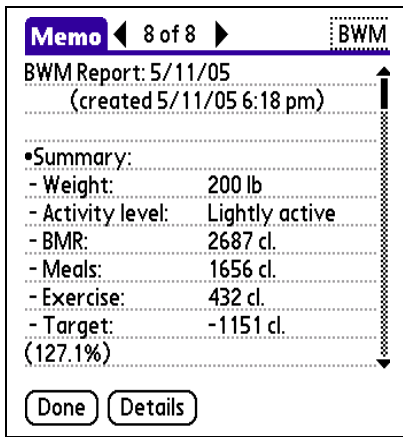
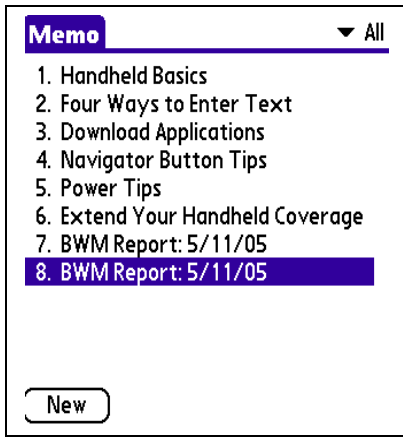
You can also modify existing item delete it or move to another category.

## Reports

You can generate daily usage report and export it into a standard MemoPad application as a separate record in MemoPad database:

- **Select Menu->View->Report** on any form.
- Select sections you would like to be included in this report.

- Select "Memo Pad" category ("BWM" by default).
- Tap **“OK”**.
- Close the application and launch a **“Memo Pad”** application.
- Observe the record list, you should see a new record with a title like **“BWM report: {m/d/y}”**.



Next time you do HotSync with desktop - this record will be transferred to your desktop. Now you can view, edit or print this report on your desktop.

## Other Forms



### Log Form

Date	Weight	Meals	Workout	Target%	BMR
01/31	198	1445	0	97	2216
01/30	199	1260	0	118	2222
01/29	199	1449	0	95	2222
01/28	199	1449	0	96	2222
01/27	200	1350	0	106	2227
01/26					
01/25					
01/24					

14%	61%	20%
Carb.	Fiber	Prot.
43	8.7	178.2
	Fat	S.Fat
	60	19.2

This form gives you historical log view of each day you have used the BWM application. It shows what were your weight, meals, exercises, final balance and BMR, day by day. There is «*Nutrient Bar*» below the grid. It shows the nutrients intake (carbs, fiber, protein and fat) in percents. Tap this bar to see it by weight.

Buttons on this form:



«*Dashboard*» switches you to DASHBOARD SCREEN



«*Weight*» opens WEIGHT & BMR form



«*Meals*» opens MEALS SCREEN for editing meals list



«*Exercise*» opens EXERCISE SCREEN



«*Memo*» for editing DAILY NOTES



«*Nutrient Breakdowns*» Button opens NUTRIENT BREAKDOWNS.



«*Weight Progress Graph*» shows you WEIGHT PROGRESS GRAPH.










## Meal Form

Category	Value
Meals (Budget: -19):	1445
[A - Z] Brands	
[A - Z] Restaurants	
Beverages	121
Bread, Cereal, Pasta, Rice	
Dairy, Eggs	
Desserts, Sweets	
Entrees, Others	
Fats, Oils, Dressings	
Fish, Shellfish & Seafood	257
Fruits, Fruit juice	
Meat, Poultry	1021
Bacon	
Beef	
Lamb	1021
Lamb arm broiled	283

This form gives complete overview of your daily meals. You can add, edit or delete items of your daily meal. In the main pane, you can see the tree view of your meals.

There are several controls at the bottom this form:

-  **«Add»** adds new item to the list.
-  **«Edit»** opens Item Edit Form when you need to change the serving size of the selected item.
-  **«Delete»** deletes an item from the list
-  **«Search»** opens search dialog when you need find the food item in database by name.
-  **«Tree»** switches between “Full Tree” and “Meals Only” view modes.
-  **«Eye glasses»** changes the current view mode. There are three modes: “By category”, “By Time” and “Summary”.
-  **«Edit Food DB»** Editing food database.

## Food Item Edit Form

**Edit Item** ⓘ ↩

Item: Dairy, Eggs  
 ↳ Cheese  
 ↳ Cottage Cheese  
 ↳ Creamed

Serving size: 3.8 cup

Calories: 824

14%	61%	23%
Carb.	Prot.	Fat
22.8	98.8	38

OK Cancel ▼ 02:00 p.m.-06:00 p.

The **FOOD ITEM EDIT FORM** allows you to change the serving size of the selected food item. To change to a different food item, tap the large icon in the left upper corner of the screen and it will bring a Tree Control with all the food items available. To change the units of measure – cups, oz, grams etc. select the appropriate item from pop-up list at the right side of the serving size field. Calories field shows you calories contained in the selected serving. There is «**Nutrient Bar**». It shows the nutrient intake (carbohydrates, fiber, protein and fat) in percents or by weight.

## What are basal and resting metabolic rates? (BMR and RMR)

These two terms are used interchangeably, although they are not technically the same. Resting metabolic rate is really, what most lay people mean when they say basal metabolic rate. Resting metabolic rate is the energy required by a human to stay alive with no activity. Your real metabolic rate is always significantly higher than your RMR. Calculating RMR is a very useful first step in calculating your real metabolic rate.

**Your metabolic rate = your resting metabolic rate (easy to calculate reasonably accurately) + energy consumed by your daily activities (must guesstimate).**

For the vast majority of people, resting metabolic rate can be calculated knowing a few key variables. They are age, sex, weight, and height.

### Calculating your basal metabolic rate (BMR)

You take a certain percentage of your RMR and add that to the RMR, giving your total estimated metabolic rate.

Activity Level	Men	Women
Sedentary (inactive)	15%	15%
Lightly Active (most professionals, office workers, shop workers, teachers, homemakers)	40%	35%
Moderately active (workers in light industry, most farm workers, active students, department store workers, soldiers not in active service, commercial fishing workers)	50%	45%
Very active (full-time athletes and dancers, unskilled laborers, forestry workers, military recruits in training, soldiers in active service, mine workers, steel workers)	85%	70%
Exceptionally active (lumberjacks, blacksmiths, female construction workers)	110%	100%

## Weight Management

**The Initial Goal** of weight loss strategy for overweight users is a reduction in body weight of about 10 percent. If this target is achieved, consideration may be given to further weight loss. In general, patients will wish to lose more than 10 percent of body weight; they will need to be counseled about the appropriateness of this initial goal. Further weight loss can be considered after this initial goal is achieved and maintained for 6 months. The rationale for the initial 10-percent goal is that a moderate weight loss of this magnitude can significantly decrease the severity of obesity associated risk factors. It is better to maintain a moderate weight loss over a prolonged period than to regain weight from a marked weight loss. The latter is counterproductive in terms of time, cost, and self-esteem. Rate of Weight Loss A reasonable time to achieve a 10-percent reduction in body weight is 6 months of therapy. To achieve a significant loss of weight, an energy deficit must be created and maintained. Weight should be lost at a rate of 1 to 2 pounds per week, based on a caloric deficit between 500 and 1,000 kcal/day. After

6 months, theoretically, this caloric deficit should result in a loss of between 26 and 52 pounds. However, the average weight loss actually observed over this time is between 20 and 25 pounds. A greater rate of weight loss does not yield a better result at the end of 1 year. It is difficult for most patients to continue to lose weight after 6 months because of changes in resting metabolic rates and problems with adherence to treatment strategies. Because energy requirements decrease as weight is decreased, diet and physical activity goals need to be revised so that an energy deficit is created at the lower weight, allowing the patient to continue to lose weight. To achieve additional weight loss, the patient must decrease calories and/or increase physical activity. Many studies show that rapid weight reduction is almost always followed by gain of the lost weight. Moreover, with rapid weight reduction, there is an increased risk for gallstones and, possibly, electrolyte abnormalities.

### **Weight Maintenance at a Lower Weight**

Once the goals of weight loss have been successfully achieved, maintenance of a lower body weight becomes the major challenge. In the past, obtaining the goal of weight loss was considered the end of weight loss therapy. Unfortunately, once patients are dismissed from clinical therapy, they frequently regain the lost weight. After 6 months of weight loss, the rate at which the weight is lost usually declines, then plateaus. The primary care practitioner and patient should recognize that, at this point, weight maintenance, the second phase of the weight loss effort, should take priority. Successful weight maintenance is defined as a regain of weight that is less than 6.6 pounds (3 kg) in 2 years and a sustained reduction in waist circumference of at least 1.6 inches (4 cm). If a patient wishes to lose more weight after a period of weight maintenance, the procedure for weight loss, outlined above, can be repeated. After a patient has achieved the targeted weight loss, the combined modalities of therapy (dietary therapy, physical activity, and behavior therapy) must be continued indefinitely; otherwise, excess weight will likely be regained. Numerous strategies are available for motivating the patient; all of these require that the practitioner continue to communicate frequently with the patient. Long-term monitoring and encouragement can be accomplished in several ways: by regular clinic visits, using diet software management tools. The longer the weight maintenance phase can be sustained, the better the prospects for long-term success in weight reduction.