Outsmartering The Midlife Female Fat Cell

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Objectives

- Discuss how the female fat cell works throughout the life cycle

- Discover the role of serotonin in weight management and overall health

- Discuss practical tips to minimize weight gain and lose weight (if desired) and to maximize energy
Did you know?

- 30 billion fat cells
- Compared to men, we have
  - larger fat cells
  - more fat storing hormones
  - more resistant to dieting.Fat Cells
- As you mature, fat cells grow even larger and become more stubborn
- Fat cells increase in size, number, and ability to store fat (waist)
Did you know?

- The average woman has smaller muscles than men. Each pound burns 10 calories per day. Hence men can consume more calories and burn calories more efficiently.

- Men have more muscle, less fat (12-18%) while women have less muscle and more fat (18-25%).

- After 30 – muscle down, fat up.
Did you know?

- Fat cells manufacture estrogen and balance your body during times of transition (puberty, pregnancy)

- Entering menopause --- Estrogen Levels drop
  - Low Estrogen
    - Eat More/Move Less
    - Lower Metabolic Rate
    - Body Fat Redistributed
Did you know?

* Most women who are midlife have been dieting since their teens and have been on at least 15 different diets.
  * Each time you diet, estrogen levels drop and our cortisol levels rise
  * Many years of dieting causes your body’s normal weight regulatory system to wear out
  * **Result:** longer transition, a more severe experience and more weight gain
The Life Cycle Of A Female Fat Cell

- Fat cells have the power to store fat daily but especially in 3 stages of the female lifecycle: puberty, pregnancy, and transition to menopause
The Life Cycle Of A Female Fat Cell

Food Cravings Increase

- **Serotonin**, a brain chemical, decreases as estrogen starts to decrease:
  - You may feel: tired, moody, crave sugar, starch, and chocolate
  - Your cravings for high-calorie foods ensure you are eating sufficient calories for your fat cells to store
Serotonin

- **Characteristics:**
  - General Mood Stabilizer
  - Made from the amino acid tryptophan with the help of B6, B12, and folic acid
  - High protein intake can effect serotonin production

- **Low serotonin levels**
  - Insomnia
  - Depression
  - Food Cravings
  - Increase sensitivity to pain

- **Increasing serotonin levels**
  - Boost mood
  - Curb cravings
  - Increase pain tolerance
  - Help you sleep
Food and Serotonin Levels

Carbohydrate rich snack/meal (Granola Bar and yogurt)

Pancreas releases insulin

Amino acids in blood drop except tryptophan

Tryptophan enters the brain

Mood improves, carbohydrate craving subsides and you feel relaxed

Tryptophan (Vit. B6 and 12, and folic acid) converts to serotonin
How To Increase Serotonin Levels

- **Decrease Sugar:** quick rise and fall of serotonin levels, limit 6 tsp/day
- **Decrease Refined starch (white bread):** quick rise and fall of serotonin levels due to fluctuating insulin levels.
- **Increase Whole-grain foods:** slow release of insulin resulting in a slow steady increase in serotonin levels.

### Barley
- Serve poultry, fish and meat on a bed of cooked barley. Add sliced oranges or raisins or a sprinkle of pecans for more fiber for your mouthful.

### Brown Rice
- Offers increased amounts of iron, and many B vitamins
- Serve with a stir-fry

### Bulgur
- Versatile, nutritious grain that is ready to eat after only a quick soak — it’s pre-cooked so there is no cooking required

### Corn
- Good source of bioaccessible carotenoids, which are important in the prevention of chronic diseases such as cancer, cardiovascular disorders and age-related macular degeneration

### Cracked Wheat
- The whole wheat kernel is cracked which makes cooking time somewhat shorter
- Can be added to soups and stews for fiber

### Millet
- Gluten-free
- Add ground millet to bread and muffin recipes

### Quinoa (pron. KEEN-wah)
- Amino acid-rich seed that cooks to a fluffy, creamy, slightly crunchy texture
- Use in soups, meat loaf and stuffed peppers

### Oatmeal
- Have a bowl of oatmeal or ready-to-eat oat cereal for breakfast
- Use oatmeal as a thickener in your meat loaf

### Whole Rye
- Try a duo-tone sandwich: mix white bread with whole wheat, or wheat with rye; or sourdough with pumpernickel — the combinations are endless

### Whole Wheat
- In most recipes, whole wheat flour may be mixed half and half with white flour for increased fiber
- Great for making breads, rolls and pizza crusts

### Whole Wheat Kernels (Wheat Berry)
- The cooked whole kernel can be used in meat dishes, as a breakfast cereal or in chili, soups, stews, salads and baked dishes
How To Increase Serotonin Levels

- Maximize B6 and B12
The Life Cycle Of A Female Fat Cell:
45 years: Perimenopause

- Estrogen is declining significantly
- Your periods have changed
- You crave chocolate all month long
- You continue to lose ½ pound of muscle a year your caloric needs drop by as much as 400 calories a day. With no changes those extra 400 calories accumulate in your waist.
The Life Cycle Of A Female Fat Cell: 45 years

- You have gained 10 POUNDS of FAT

- You notice “one size fits all” labels have crept into your wardrobe

- Your fat cells start reproducing and multiplying to make sure there is plenty of room to store fat and produce estrogen
The Life Cycle Of A Female Fat Cell:
45 years

- You notice that your upper body has physically and visually changed
- Your waist has increased by 2 inches and your pear-shaped body has become noticeably an APPLE
The Life Cycle Of A Female Fat Cell:
55 years: Post Menopause

- Your moods even out
- Your memory comes back
- You have a few hot flashes but not as intense
- Your weight has stabilized on its own and you’re pleasantly surprised to find that you’ve lost a couple of pounds without trying
The Life Cycle Of A Female Fat Cell:
55 years: Post Menopause

- The fat cells have accomplished their mission and the fat-storing hormones are deactived
- Your fat cells actually shrink
- You actually start to notice more cravings for protein and vegetables
Aging Fat Cell in Summary:

- Aging fat cell
- Estrogen
- Levels
- Muscle mass
- Metabolism
- Caloric needs
- Food cravings
- Fat-storing enzymes
- Estrogen production and survival
Midlife Weight Gain in Summary…

- Premature Menopause
- Genetics (Maternal Obesity)
- Dieting
- Late Pregnancy (over 35)
- Inactivity
- Hormones (the pill or HRT)
- Stress
7 Habits Of Highly Successful Healthy Women

- Lost weight by themselves and for themselves
- Overall acceptance of their bodies
- Exercised regularly
- Ate breakfast every day
- Ate at regular intervals
- Ate balanced, nutrient/calorie appropriate meals
- Regularly enjoyed their favorite foods

SUCCESSFUL WOMEN EAT !!!
Tips: Eat Every 3-4 hours

- Eat breakfast within 2 hours of waking
- Allow mid-morning and afternoon snacks as needed.
- Choose balanced meals and snacks
Create A Balanced Plate

- Use healthy oils (like olive and canola oil) for cooking, on salad, and at the table.
- The more veggies—and the greater the variety—the better.
- Eat plenty of fruits of all colors.
- Drink water, tea, or coffee (no sugar).
- Eat whole grains (like brown rice, whole-wheat bread, and whole-grain pasta).
- Choose fish, poultry, beans, and nuts.

STAY ACTIVE!
Keep an “eye” on your food portion sizes
Focus On Nutrient Dense Foods Most Of The Time

- Include Fiber and Lean Protein at each meal
- Aim for 5-9 servings of fruits and vegetables
- Include 2-3 servings of dairy products
- Shoot for 30+ grams of dietary fiber per day
- Have at least 3 whole grain foods daily
- Have at least 5 oz of lean protein daily
- Have at least 3 teaspoons of healthy oils daily
Label Reading Made Easy

- 3 grams total fat/100 calories
- 1 gm saturated fat/100 calories
- 0 trans fat
- Over 3 grams dietary fiber
- No more that 480 mg sodium per serving
Focus On Fiber and Protein

- You will have a better mood and more energy throughout the day
Super Stars...

**High-Fiber Super Stars**

- 1 medium baked potato with skin: 5 grams
- 1 pear: 4 grams
- 1 cup lentil soup: 14 grams
- 1/2 cup FIBER ONE® Cereal: 13 grams
- 3 cups popcorn: 4 grams
- 1 serving Brown Rice & Vegetable Stuffed Squash (page 90): 11 grams
- 1/4 cup oatmeal: 3 grams
- 1 medium orange: 3 grams
- 1/2 cap strawberries: 4 grams
Quick But Healthy Meals

- Whole grain waffle (3 gms fiber or more)
- Top with all natural Peanut Butter and thawed blueberries
- Served with 4 oz. of Ca/D fortified juice
Quick But Healthy Meals

- Healthy Soup
- Add frozen vegetables
- Add shrimp (only 7-10 calories/per shrimp)
Quick But Healthy Meals

- Whole Grain Pasta
- Topped with steamed vegetables and garbanzo beans
- Bagged tossed salad
Journal Daily
There's an App for That!

**myfitnesspal**

**Summary**

- **FRIDAY / 9 Nov 2012**

**Your Daily Summary**

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<th>Exercise</th>
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**Diary**

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<tr>
<td>Whole Rolled Porridge Oats</td>
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<tr>
<td>Sainsbury's Taste the Difference, 100 g</td>
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<tr>
<td>Organic Almond Butter</td>
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<td>Meridian, 15 g</td>
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<tr>
<td>Medium Banana</td>
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<tr>
<td>Banana, 100 g</td>
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<tr>
<td>Light &amp; Mild Honey</td>
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<tr>
<td>Rowse, 15 ml</td>
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</table>

**News feed**

- **arouf1** burned 788 calories doing 97 minutes of "LISS (Walking Uphill) + Abs"
  - 6 hours ago

- **christlindley6** completed his food and exercise diary for 11/10/2012 and was under his calorie goal. [View diary]
  - 20 hours ago
Move Daily!!
Simple Ways To Increase Activity and Energy

- Park farther from the door at work (5 minutes)
- Walk up 4 flights of steps daily (3 minutes)
- Walk 5 minutes at breaks and lunch (15 minutes)
- Do isometric exercises at your desk (3 minutes)
- Do activity during your favorite 1 hour show (16 minutes)
- Do housework when you get home from work (15 minutes)
- Walk to the farthest bathroom daily (15 minutes)

Total of 72 minutes
(around 450 extra calories per day burned)
In A Nut Shell

- Focus on EATING instead of not eating
- Always have a small amount of lean protein with fiber rich foods at each meal
- Plan well-balanced meals and snacks
- Get plenty of exercise
- Increase daily activities
Resources

Debra Waterhouse, M.P.H., R.D.
http://www.waterhousepublications.com