

Managing the Obese Client

**Satellite Conference and Live Webcast
Wednesday, May 23, 2012
2:00 – 4:00 p.m. Central Time**

**Produced by the Alabama Department of Public Health
Video Communications and Distance Learning Division**

Faculty

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How Is Obesity Determined?

- **Several methods can be used:**
 - **Height-weight tables used to be the standard**
 - **Measure percent of body fat**

How Is Obesity Determined?

- **Waist-to-hip measure**
 - **Measure hips and waist**
 - **Divide waist by hip measurement**

How Is Obesity Determined?

- **Waist-to-hip measure ratio**
 - **Men below 0.90**
 - **Women below 0.80**

How Is Obesity Determined?

- **Body Mass Index**
 - **BMI standard now**
 - **Measure that compares weight to height**

BMI

- Gives a number that indicates:
 - Under weight
 - Less than 18.5
 - Normal weight
 - 18.5 - 24.9
 - Overweight
 - 25 - 29.9

BMI

- Obese, Class I
 - 30 - 34.9
- Obese, Class II
 - 35 - 39.9
- Severely obese, Class III
 - 40 or greater

Calculating BMI

- $[(\text{Weight} - \text{lbs} \div \text{Height} - \text{inches}) \div \text{Height} - \text{inches}] \times 703$
 - Example
 - $(250 \text{ lbs} \div 63) \div 63 \times 703 = \text{BMI of } 46$

Use BMI Calculator

- adph.org/worksitewellness
 - Related links
 - Quizzes
 - Body Mass Index evaluation

bmi calculator and body weight comparison

BMI = kg/m²

This bmi calculator calculates body mass index from your Weight and Height and also shows how your weight compares to others of the same height and age.

Weight pounds or kg

Height inches cm

results: Body Mass Index: kg/m²

"Male" is the initial setting on this page.

Age: years ()

Gender:

Women may prefer to bookmark this body mass index calculator instead.

Body Description:

UPDATED > [Accessibility](#) [WHO-CDC](#)

Your Weight is at compared to others of same Height and Age

Use BMI Chart

- Height in inches on left side of chart
- Go across to weight in pounds
- Number at top of column is BMI
- Can be found in ADPH Document Library under Professional and Support Services
 - Weight Watchers

Wellness
NATIONAL INSTITUTE OF HEALTH
NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND PROMOTION

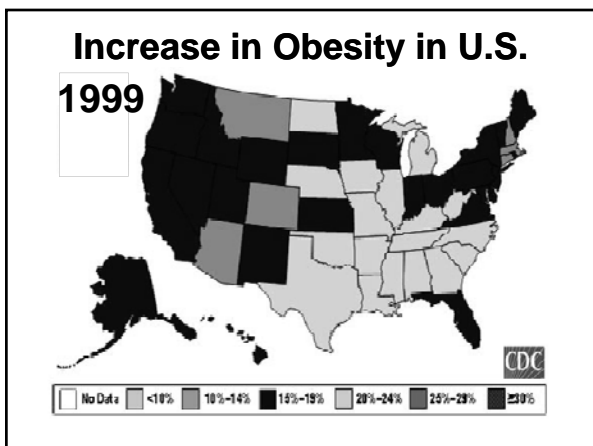
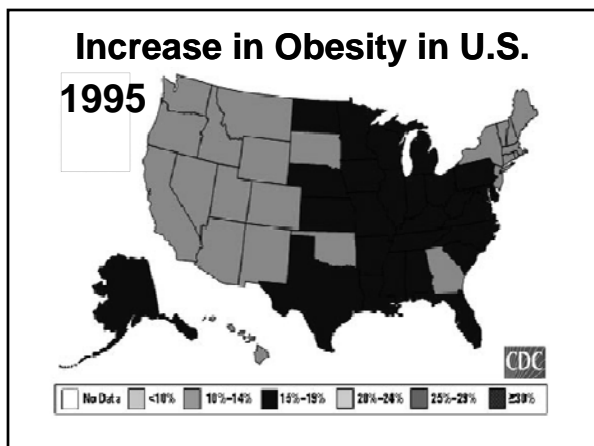
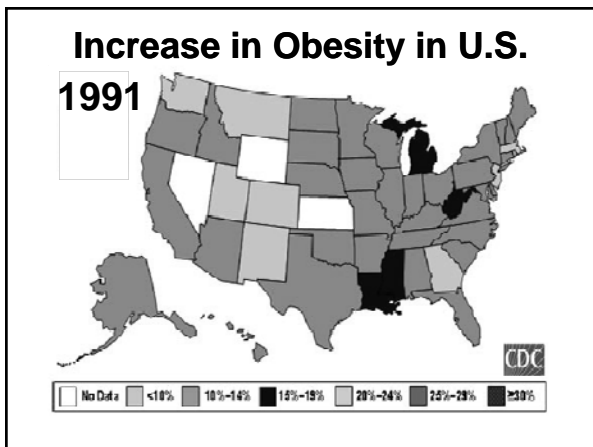
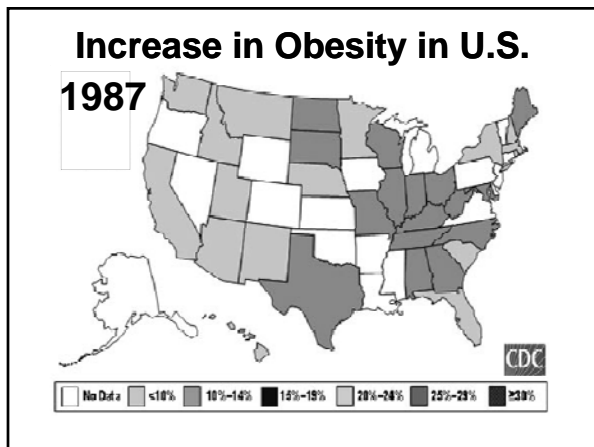
Body Mass Index Table

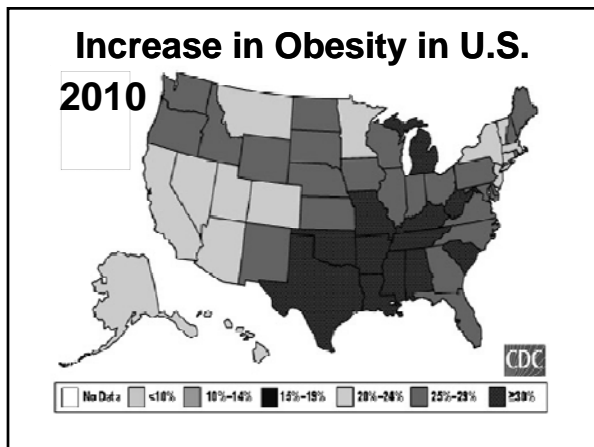
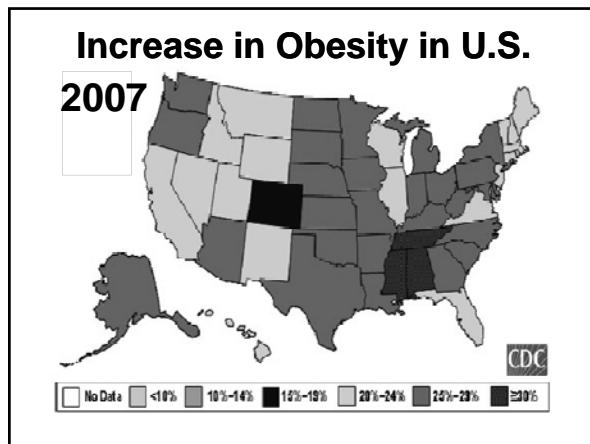
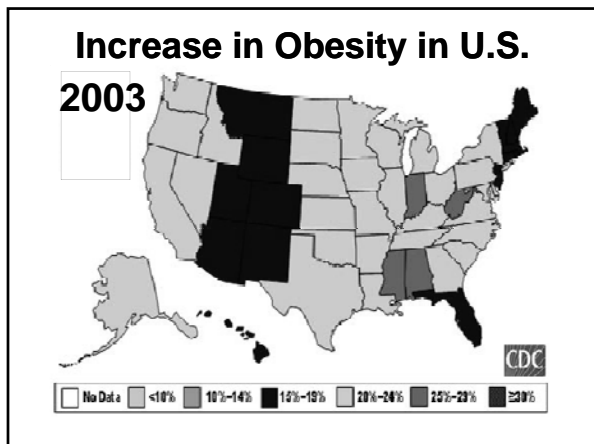
www.npr.gov/obesity

BMI	Normal					Overweight					Obese					Extreme Obesity									
	18.5	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
Height	Body Weight (pounds)																								
5'0"	125	136	148	160	173	185	197	210	223	236	249	262	275	288	301	314	327	340	353	366	379	392	405	418	431
5'1"	136	148	161	174	187	199	212	225	238	251	264	277	290	303	316	329	342	355	368	381	394	407	420	433	446
5'2"	147	160	173	186	199	212	225	238	251	264	277	290	303	316	329	342	355	368	381	394	407	420	433	446	459
5'3"	158	172	185	198	211	224	237	250	263	276	289	302	315	328	341	354	367	380	393	406	419	432	445	458	471
5'4"	169	184	197	210	223	236	249	262	275	288	301	314	327	340	353	366	379	392	405	418	431	444	457	470	483
5'5"	180	196	209	222	235	248	261	274	287	300	313	326	339	352	365	378	391	404	417	430	443	456	469	482	495
5'6"	191	208	221	234	247	260	273	286	299	312	325	338	351	364	377	390	403	416	429	442	455	468	481	494	507
5'7"	202	220	233	246	259	272	285	298	311	324	337	350	363	376	389	402	415	428	441	454	467	480	493	506	519
5'8"	213	232	245	258	271	284	297	310	323	336	349	362	375	388	401	414	427	440	453	466	479	492	505	518	531
5'9"	224	244	257	270	283	296	309	322	335	348	361	374	387	400	413	426	439	452	465	478	491	504	517	530	543
5'10"	235	256	269	282	295	308	321	334	347	360	373	386	399	412	425	438	451	464	477	490	503	516	529	542	555
5'11"	246	268	281	294	307	320	333	346	359	372	385	398	411	424	437	450	463	476	489	502	515	528	541	554	567
6'0"	257	280	293	306	319	332	345	358	371	384	397	410	423	436	449	462	475	488	501	514	527	540	553	566	579
6'1"	268	292	305	318	331	344	357	370	383	396	409	422	435	448	461	474	487	500	513	526	539	552	565	578	591
6'2"	279	304	317	330	343	356	369	382	395	408	421	434	447	460	473	486	499	512	525	538	551	564	577	590	603
6'3"	290	316	329	342	355	368	381	394	407	420	433	446	459	472	485	498	511	524	537	550	563	576	589	602	615
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6'5"	312	340	353	366	379	392	405	418	431	444	457	470	483	496	509	522	535	548	561	574	587	600	613	626	639
6'6"	323	352	365	378	391	404	417	430	443	456	469	482	495	508	521	534	547	560	573	586	599	612	625	638	651
6'7"	334	364	377	390	403	416	429	442	455	468	481	494	507	520	533	546	559	572	585	598	611	624	637	650	663
6'8"	345	376	389	402	415	428	441	454	467	480	493	506	519	532	545	558	571	584	597	610	623	636	649	662	675
6'9"	356	388	401	414	427	440	453	466	479	492	505	518	531	544	557	570	583	596	609	622	635	648	661	674	687
6'10"	367	400	413	426	439	452	465	478	491	504	517	530	543	556	569	582	595	608	621	634	647	660	673	686	699
6'11"	378	412	425	438	451	464	477	490	503	516	529	542	555	568	581	594	607	620	633	646	659	672	685	698	711
7'0"	389	424	437	450	463	476	489	502	515	528	541	554	567	580	593	606	619	632	645	658	671	684	697	710	723

Disease Risks by BMI and Waist Circumference

BMI	Waist ≤ 40 in men or ≤ 35 in women	Waist ≥ 40 in men or ≥ 35 in women	
		Low	High
18.4 or less	Underweight	Low	---
18.5 – 24.9	Normal	Low	---
25.0 – 29.9	Overweight	Increased	High
30.0 – 34.9	Obese, Class I	High	Very high
35.0 – 39.9	Obese, Class II	Very high	Very high
40 or greater	Extremely obese, Class III	Extremely high	Extremely high





Obesity Forecast

- Over 1/3 of Americans obese now
- By 2030:
 - 42% of Americans will be obese
 - 11% of Americans will be severely obese

Cost of Obesity

- Increased health care costs
- 9% of health care \$ for obesity related illnesses
 - Diabetes
 - Heart disease
 - Kidney disease
 - Arthritis

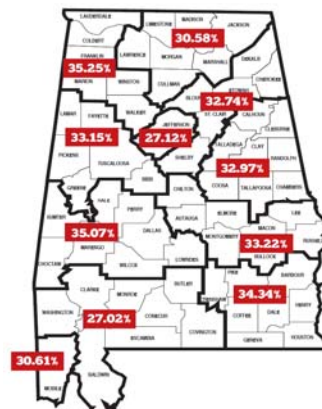
Hospital Equipment Costs

- Replace wall mounted toilets for floor mounted
- Sinks reinforced
- Doorways widened
- Stretchers to accommodate up to 750 pounds

Obesity in Alabama

- High rates of obesity in Alabama are well established
 - Adults – 31%
- Ranked 2nd in the country
 - F as in Fat
 - Report for 2010

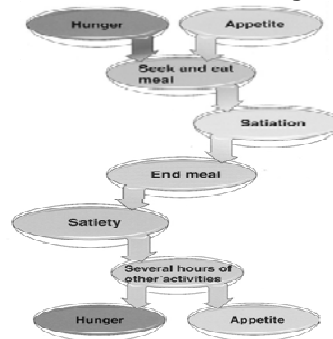
2010 Obesity Rates in Alabama by Public Health Area



Why Do We Choose to Eat the Foods We Do?

Hunger OR Appetite
 Physical need Psychological drive

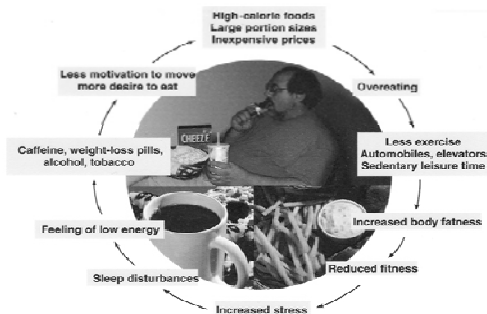
Food Intake: Normal Cascade of Regulation



Factors that Influence Food Intake

- Brain neurochemicals
- Emotional triggers
 - Stress eating
- External cues
 - Environment
- Lack of sleep
- Genetics

Environmental Effects that Contribute to Obesity



Food Composition Affects Intake

- **Protein**
 - Person eats less and blood sugar levels don't increase or drop quickly
- **Complex carbohydrates and fibers**
- **Creates feeling of fullness and person eats less**

Food Composition Affects Intake

- **High fat foods**
 - Stimulate appetite and person eats more and become hungry sooner

How Can Obesity Be Managed

- **Diet**
- **Physical Activity**
- **Medications**
 - As indicated for weight loss and other disease conditions
- **Each part works with the individual's preferences, schedule, and health status**

Nutrition and Activity Goals

- **Are the same for most people regardless of weight or disease state**
 - Eat more fruits and vegetables
 - Get enough calcium from dairy or other sources to help maintain bones
 - Limit the amount of fats
 - Adequate lean protein intake

Nutrition and Activity Goals

- Limit the amount of simple sugars eaten
- Try to get at least 30 minutes of some kind of physical activity each day
- Increase amount of whole grains and high fiber foods

Ways to Increase Intake of Whole Grains and Fiber

- **Eat high fiber breakfast cereals**
 - Bran, barley, oats
- **Add berries, nuts, flaxseed or cinnamon to cereals**

Ways to Increase Intake of Fruits and Vegetables

- Eat total of 6-9 servings of fruits and vegetables a day
- Nothing! Mom was right all along!
 - Add applesauce to cooked cereal like oatmeal
 - Blend vegetables and add to soups or sauces

Ways to Increase Intake of Fruits and Vegetables

- Chop vegetables and add to pasta dishes

Aim for More 'Whole' Fruits and Veggies

- Closer to “picked state”, generally the more fiber
- Helps to create feeling of ‘fullness’ to limit caloric intake
- Food groups with lowest calories per serving

Aim for More 'Whole' Fruits and Veggies

- Majority of vitamins and minerals needed are obtained for fruits and vegetables

Frozen and Canned Also Good Choices

- May have vitamins and minerals preserved better than fresh
- Can be more economical when certain produce is out of season
- Easier to chew
- Watch for how much sugar or salt is used in preserving

How Much and What Kind of Fats Should Be Eaten

- Include more monounsaturated fats
 - Olive oil
 - Canola oil
 - Peanut oil

How Much and What Kind of Fats Should Be Eaten

- Reduce saturated fat
 - Butter
 - Lard
 - Shortening

How Much and What Kind of Fats Should Be Eaten

- Limit trans fats to less than 1% of total calories (1g/1000 calories)
- To provide Omega 3 fatty acids:
 - Eat flaxseeds, walnuts, soybeans
 - Include 1-2 servings of fatty fish per week

Limit Portion Sizes

- Scientific experiments have shown the larger the portion size, the more you are likely to eat!

Limit Portions

- Use smaller dishes to serve meals
- When eating out, avoid buffets
- Ask for a carry out box at beginning of meal
 - Put half of food in it
- Choose smaller servings
 - Regular hamburger instead of large

Changes in Portions over the Years: Cola

20 years ago

Today



6.5 ounces

20 ounces

85 calories

250 calories

*165 calories more

Changes in Portions over the Years: Popcorn

20 years ago

Today



5 cups

11 ounces

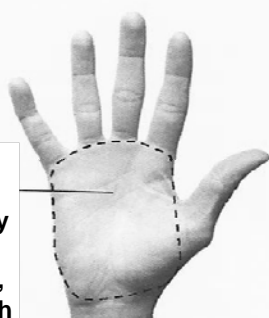
270 calories

630 calories

*360 calories more

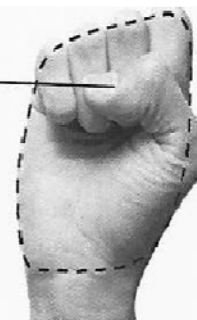
Hand-y Way to Estimate Portions

A woman's palm is approximately 3 ounces of cooked meat, chicken or fish



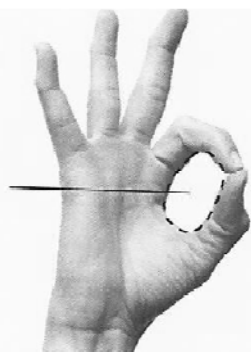
Hand-y Way to Estimate Portions

A woman's fist is about 1 cup of pasta or vegetables (a man's fist is the size of about 2 cups)



Hand-y Way to Estimate Portions

About 1 tablespoon of vegetable oil



How to Choose Healthy Snacks

- 10-10-5 nutrition standard
 - 10% or less of the Daily Value (DV) of total fat *
 - 10% or less of the Daily Value (DV) of total carbohydrates *
 - * Exception with nuts and fruits

How to Choose Healthy Snacks

- 5% or more of the Daily Value (DV) of at least one:
 - Fiber, Vitamin A, Vitamin C, Calcium, Iron
- 360 mg or less of sodium

Make a good choice. 

Look for the Good Choice symbol when choosing a healthy snack in the vending machines at work. These snacks meet the 10-10-5 rule.

Nutrition Facts		LOOK FOR THESE LIMITS	
Serving Size: 1 bar (36g) Servings Per Container: 1		ONLY one serving	
Amount Per Serving Calories 140 Calories from Fat 50		10% or less Daily Value of total fat	
Total Fat 9g	18%	360 mg sodium or less	
Saturated Fat 0.5g	10%	10% or less Daily Value of total carbohydrates	
Cholesterol 0mg	0%	5% or more Daily Value of at least one: fiber, vitamin A, vitamin C, calcium or iron	
Sodium 110mg	25%		
Total Carbohydrate 27g	9%		
Dietary Fiber 1g	2%		
Sugars 9g	18%		
Protein 5g	10%		
Vitamin A 15%	Vitamin C 4%		
Calcium 20%	Iron 10%		
* Percent Daily Values are based on a diet of other people's misdeeds. Daily Values may be higher or lower depending on your calorie needs. Calories: 2,000 (men) / 1,500 (women)			
Total Fat	Less Than	mg	mg
Total Fat	Less Than	200mg	300mg
Total Carbohydrate	Less Than	2,400mg	2,400mg
Total Carbohydrate	Less Than	360mg	370mg
Total	Less Than	mg	mg
Total	Less Than	mg	mg
Total	Less Than	mg	mg
Total	Less Than	mg	mg

• Nuts and seeds are OK even though they are high in fat. They contain more unsaturated fat which may help lower "bad" cholesterol.

• Fruit (dried or dehydrated) is not restricted by carbohydrate limits because it provides nutrients that are beneficial to an overall balanced diet.

