

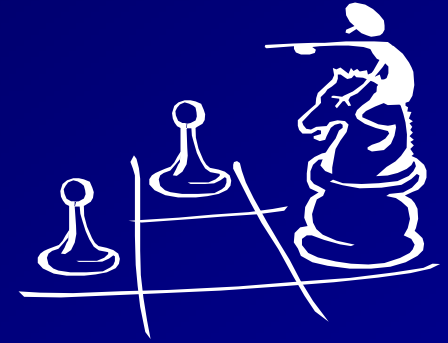
“Tightening the Belt” Is One Popular Diet Really Superior to Another?



Science Writers Conference
Holly Wyatt M.D.

Assistant Professor of Medicine
University of Colorado at Denver and
Health Sciences Center
Center for Human Nutrition

Overview



- Is there a “Superior” popular diet?
 - What are we really trying to accomplish?
 - Why do popular diets produce a weight loss?
 - Does one size fit all?
- The Difference Between Weight Loss and Weight Loss Maintenance
 - Why do most popular diets ultimately fail?
- How Can Anyone Succeed?

The “Superior” Diet?

Best diet for?

Preventing cancer

Sports performance

Building lean mass

Hypertension

Lowering cholesterol

Preventing osteoporosis

Fertility

Pregnancy

Cognitive function

Anti-aging...

Weight loss, preventing weight gain, preventing weight regain?



Important to understand the goal, one diet may not be the optimal for all

Why Does ANY Popular Diet Work for weight loss?



1200 diet books listed on Amazon.com

– 88% published since 1997

- Low Carbohydrate- Atkins, Protein Power, Carbohydrate Addicts, Sugar Busters
- Low Fat- The Ornish Diet
- Low Glycemic Index- The Glucose Revolution
- Low Energy Density- Volumetrics
- Blood type diet- Eat Right for Your Type
- Specific Foods- Grapefruit Diet, Ice Cream Diet

Why do Diets Work?

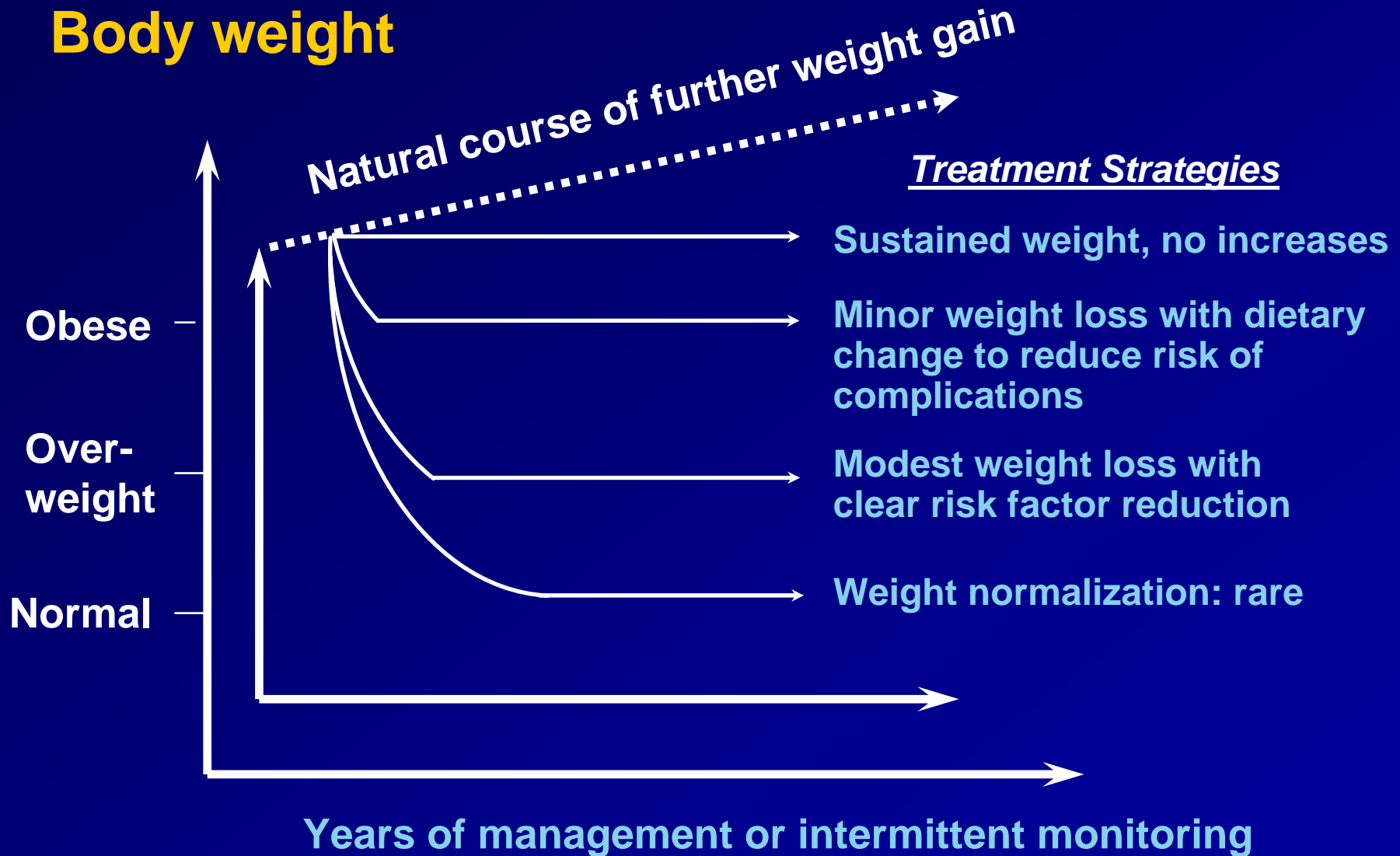
Energy Balance

- $E_{In} = E_{Out}$ for weight stability
- $E_{In} \ll E_{Out}$ causes weight loss
- This can occur by either an decrease in intake or increase in expenditure
- The negative energy balance causes adipose tissue and muscle to be burned for energy



$$E_{In} \ll E_{Out}$$

Body weight



Adapted from Rossner, 1992

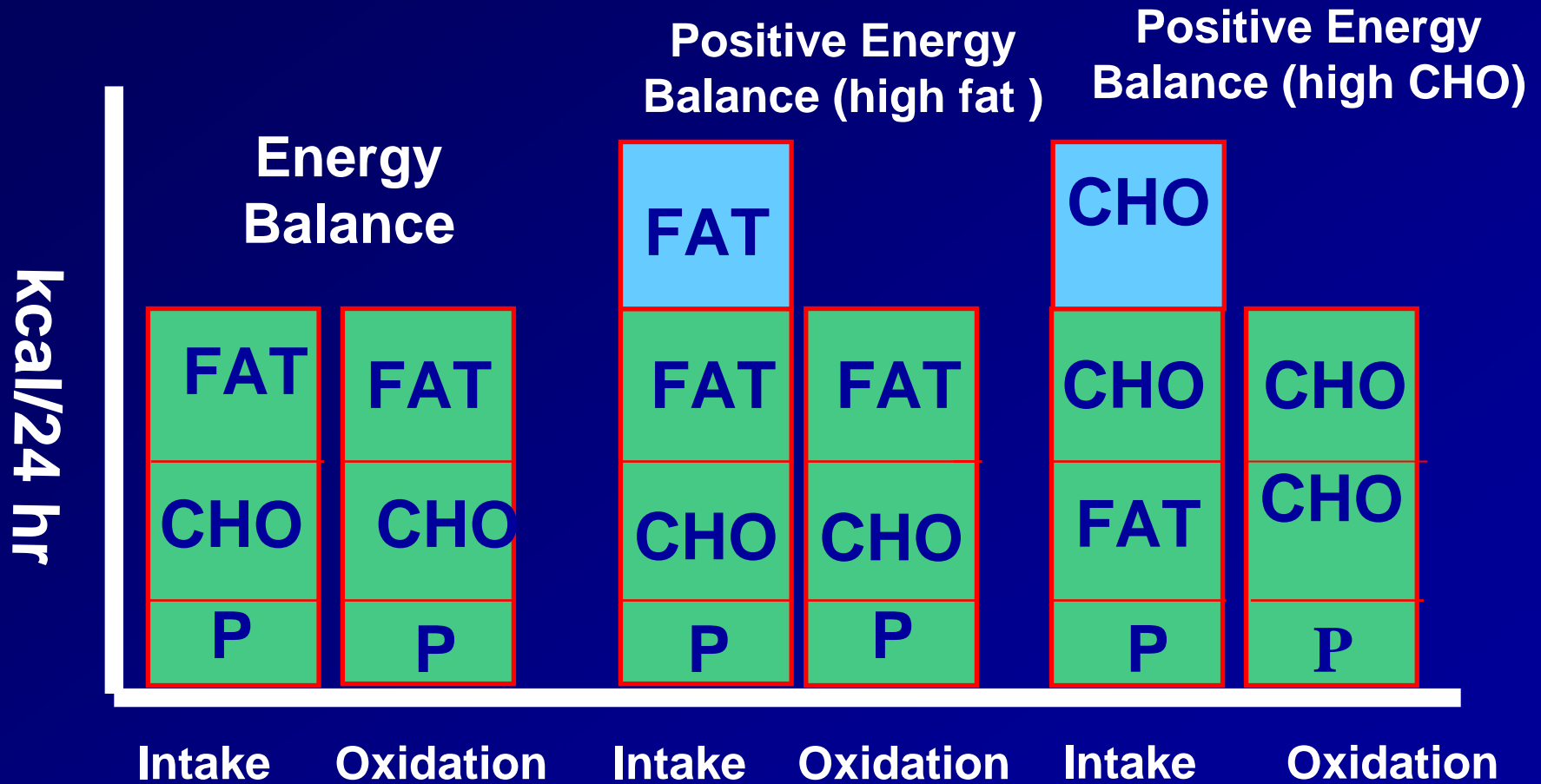
Superior Diet for Weight Loss

- Produces a the biggest negative energy balance
- (will result in a negative fat balance)
- Is safe short-term
- May be different for different people

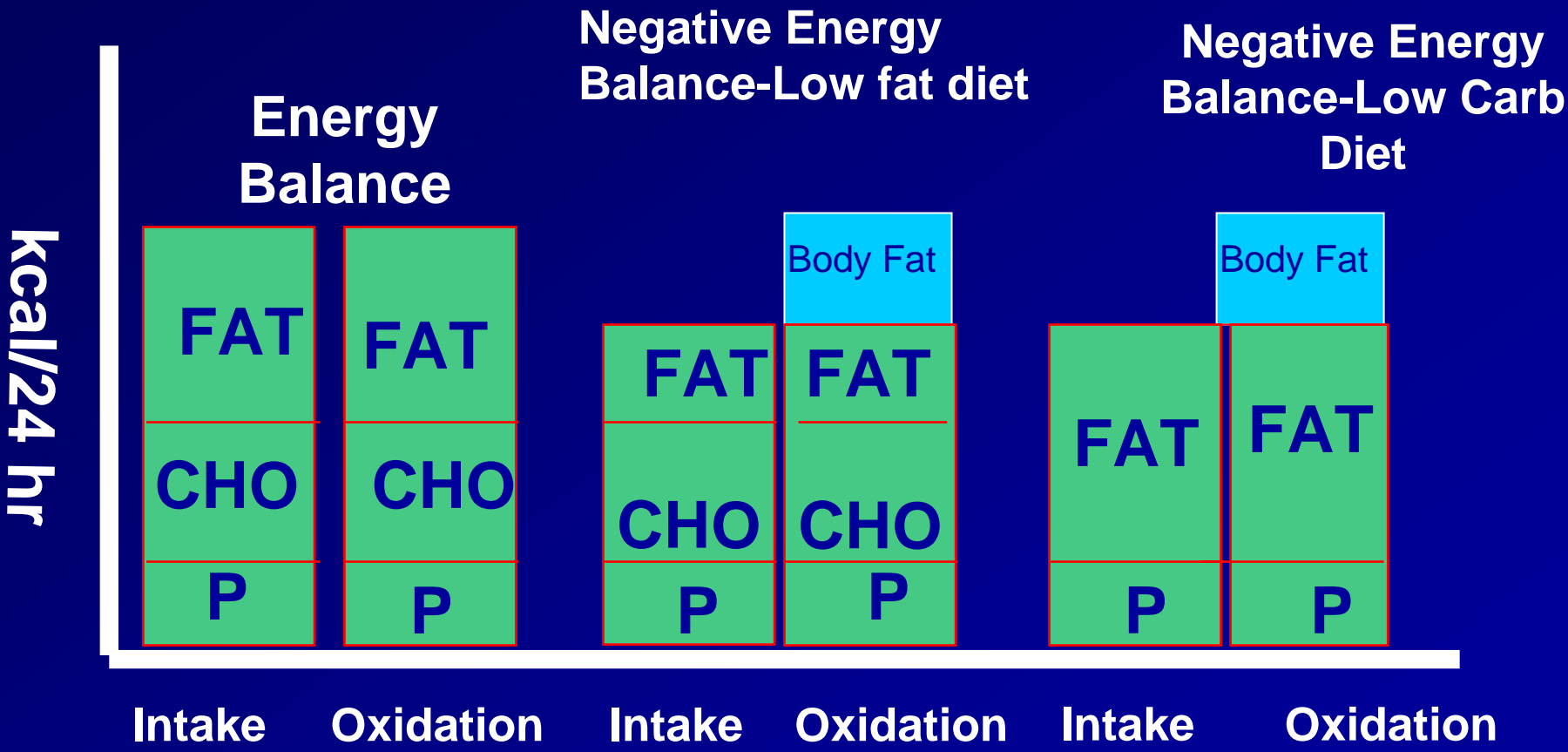
Key Concepts

- So do macronutrients matter for weight loss?
- Is a calorie a calorie when it comes to weight loss?
- Does overeating/undereating 500 calories of carbohydrate cause the same amount of weight gain/loss as 500 calories of fat?
- **Efficacy**

Effect of Fat Intake on Nutrient Oxidation- Long-term



Effect of Fat Intake on Nutrient Oxidation- Long-term



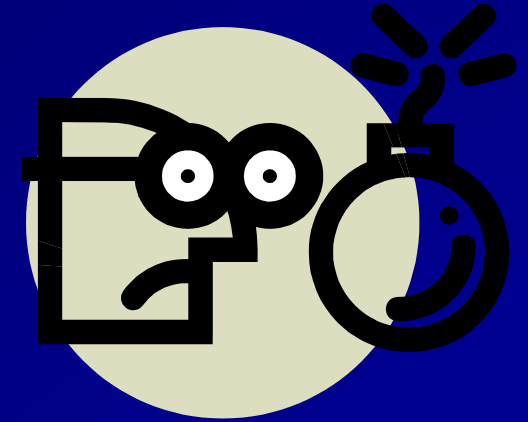
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- So do macronutrients matter for weight loss?
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- **Effectiveness**

Dietary Strategies to Achieve Weight Loss in the NWCR- One Size Does not Fit all

	Women	Men	Total
Restricted certain foods	87.8%	86.7%	87.6%
Ate all foods but restricted amount	47.2%	32.0%	44.2%
Counted calories	44.8%	39.3%	43.7%
Counted fat grams	25.7%	21.3%	25.2%
Used liquid formula	19.1%	26.0%	20.4%
Used exchange diet	25.2%	11.3%	22.5%

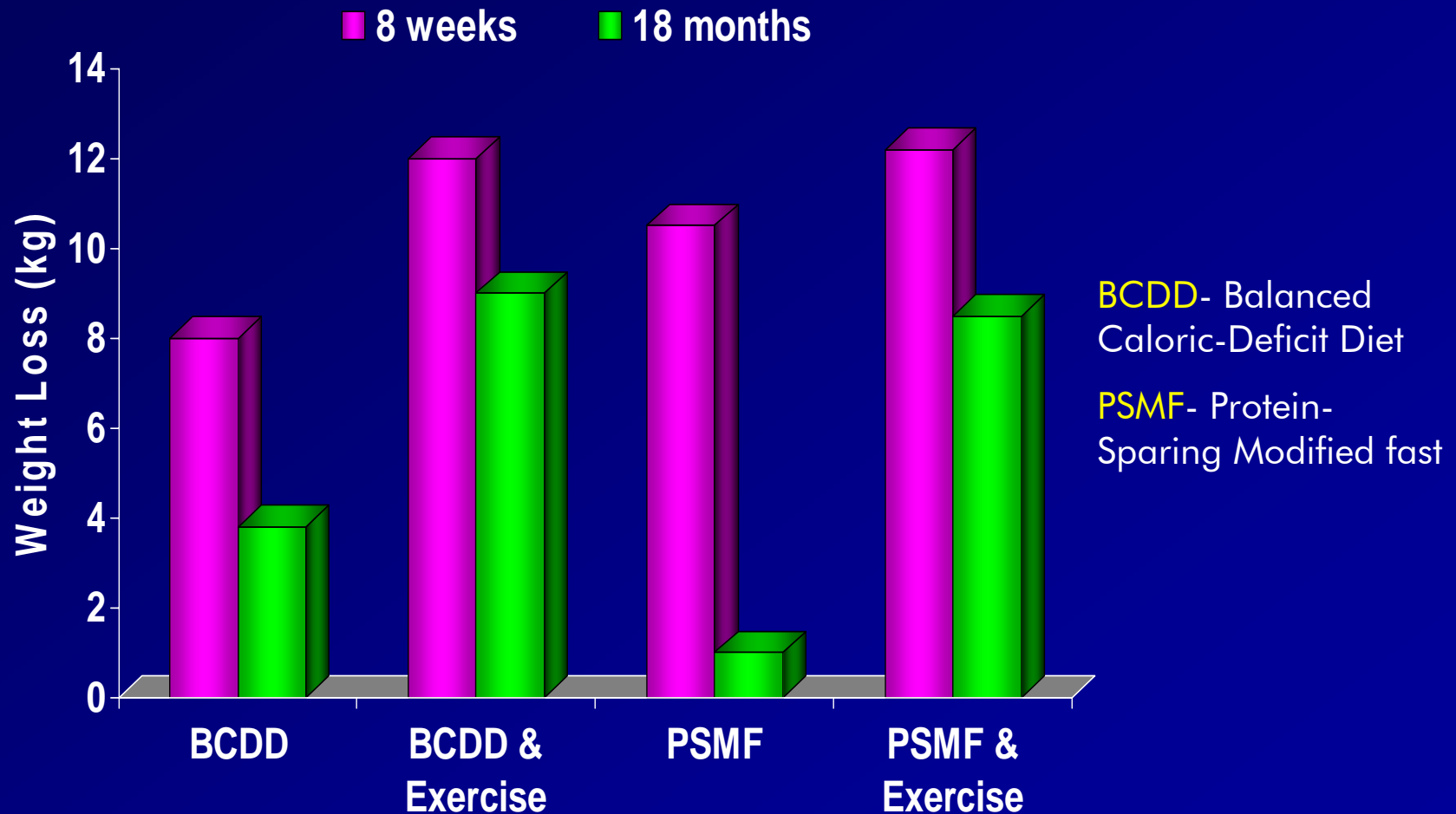
■ Why do most weight reduction diets ultimately fail?



Different Phases of Weight Management May Require Different Strategies for Success

Weight Loss	Maintenance of Weight Loss
3-6 Months	Years
<ul style="list-style-type: none">■ Time limited■ Requires a negative energy balance■ Strategies for achieving the greatest negative energy balance work best■ Intake restriction works best■ Common	<ul style="list-style-type: none">■ Life-long■ Requires energy balance at a reduced body weight■ Strategies to help achieve energy balance work best■ Physical Activity required■ Rare

Different Tools Work Best at Different Times in Weight Management

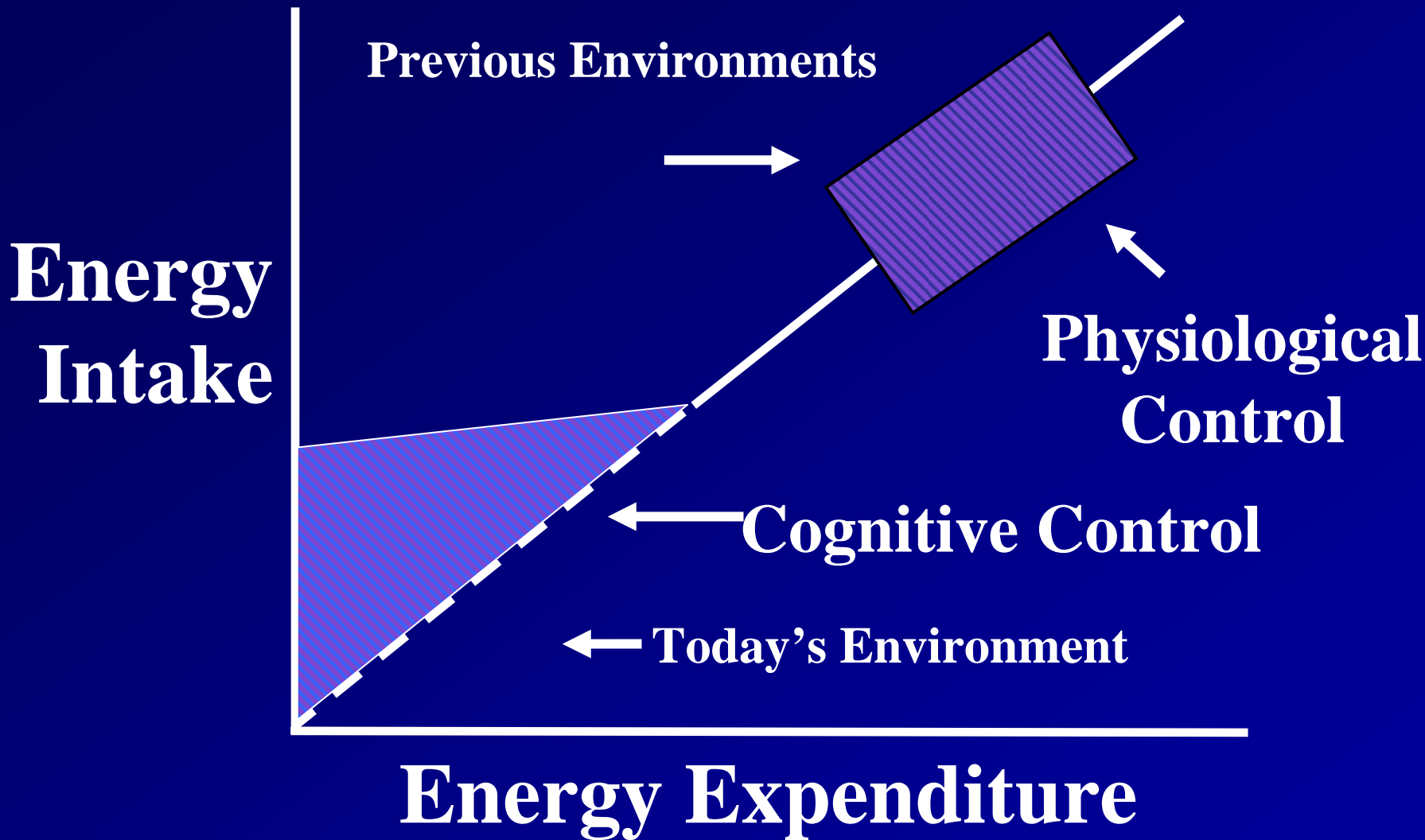


Superior Diet for Weight Loss Maintenance

- Promotes energy balance
- Promotes fat balance
- Is safe long-term (side effects)
- Can be maintained
- Provides vitamins, minerals, antioxidants
etc

NWCR: Weight Loss and Maintenance Strategies

- No similarity in how weight was lost
- Great similarity in how weight is being maintained
 - Low fat diet
 - Watching total calories
 - High daily levels of physical activity
 - Frequent self monitoring



Summary

- The process of Weight loss is not the same as Weight loss maintenance
- The “superior” diet for weight loss may not be the “superior” diet for maintaining the weight loss
- **For Weight Loss**
 - The Diet that produces the greatest negative energy balance will produce the most weight loss over the shortest period of time
 - Short-term adherence is important
 - Macronutrients are important if they effect adherence or reduce intake
 - Almost any diet works
- **For Weight Loss Maintenance**
 - The Diet that allows energy balance at a reduced body weight will allow weight loss maintenance
 - Long-term adherence and safety are more important
 - Low fat may be more important
- One size may not fit all- some people may respond better to one diet then another
- **Physical activity may be required for any diet to be successful in the maintenance phase**