

# **Management of obesity: Medical Approach**

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# Menu

- Therapeutic Patient Education
- Diets always work
- Cognitive behavioural therapy
- Pharmacologic treatments
- Cost benefit
- Tricks to lose weight



# Patient Therapeutic Education

**Psycho-social  
Educational  
models**

**Motivational  
Interviewing**

**Patient  
centered**

**Empowerment**

**Systemic  
multidisciplinary  
approach**

**Cognitive-  
behavioural  
therapy**

# **Patient Education is a Tango**

**Respect  
the rythm of  
the patient**

**Follow and  
guide  
the patient**

**Listen to  
the inner music  
of the patient**

# From Communication to Attitude



**Intellectual**  
**Emotional**  
**Spiritual**

**Acceptance**  
**Trust**  
**Compassion**

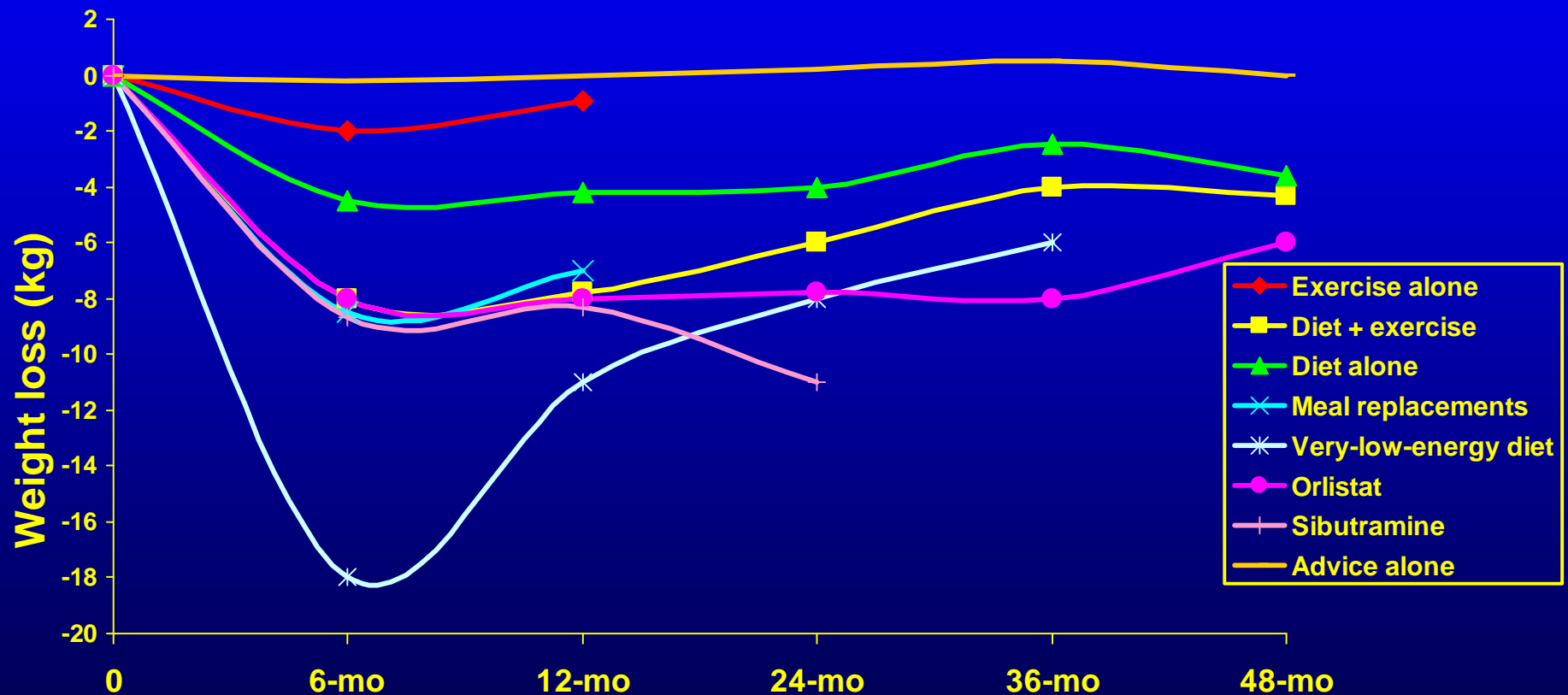
**Empathy**  
**Respect**  
**Warmth**

# Attitudes for a good relationship

- **Congruence (Feeling-Expression)**
- **Open-mindedness**
- **Independence (Self respect confidence)**
- **Acceptance (unconditioned)**
- **Empathy**
- **Readiness to let grow**
- **No roadblocks**

# Average weight loss: with a minimum 1-year weight management

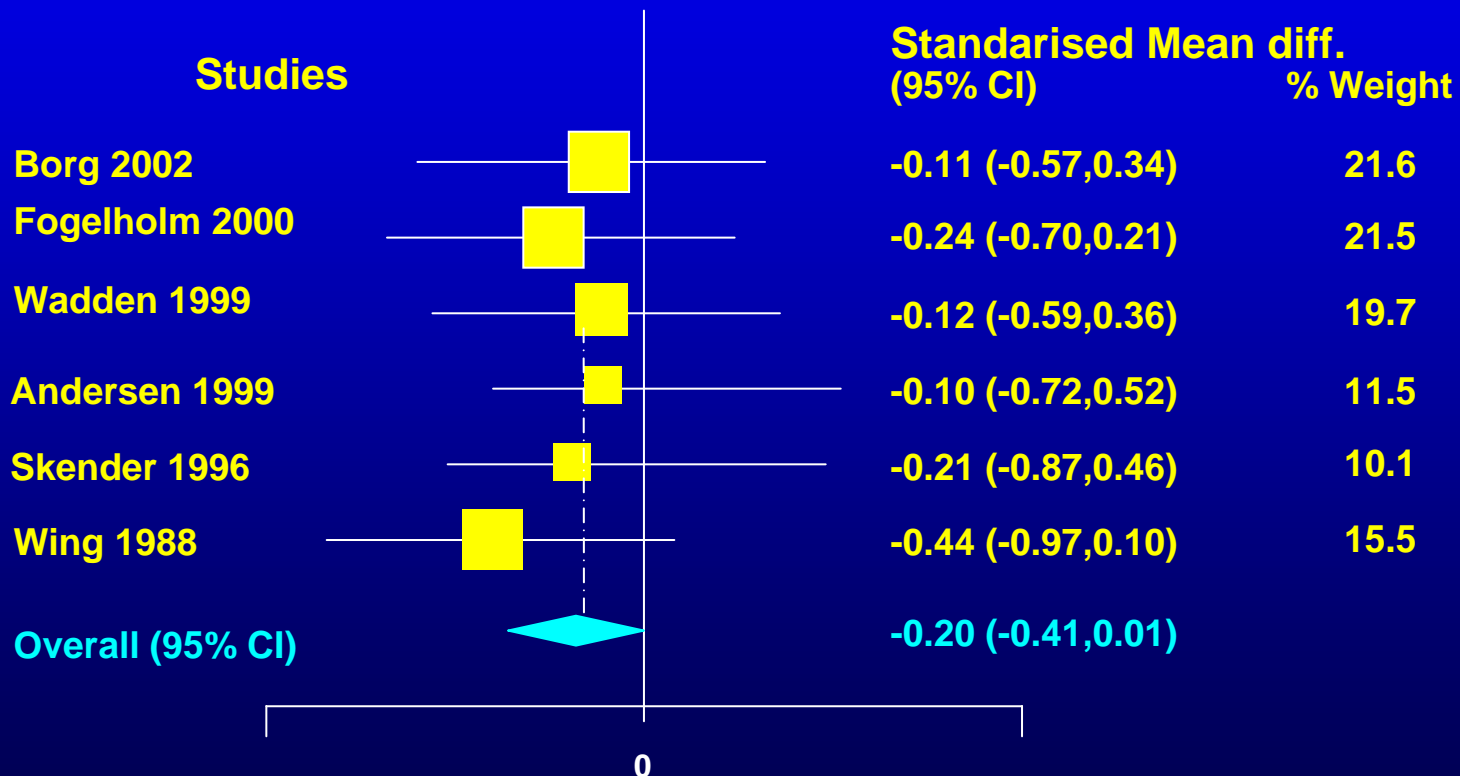
80 studies, N=26455, completers (69 %)



# Long-term weight loss after diet and exercise vs diet alone

6 trials, 10-52 weeks

## Diet and Exercise vs. Diet alone





# Diets with different compositions

**Low in  
carbohydrates**

**Carbohydrates 30%**  
**Rich in fat 45%**  
**Proteins 25%**

**Weight loss**

**7.8 ± 0.5  
kg**

**Balanced**

**Carbohydrates 45%**  
**Low in fat 30%**  
**Proteins 25%**

**Weight loss**

**7.2 ± 0.6  
kg**

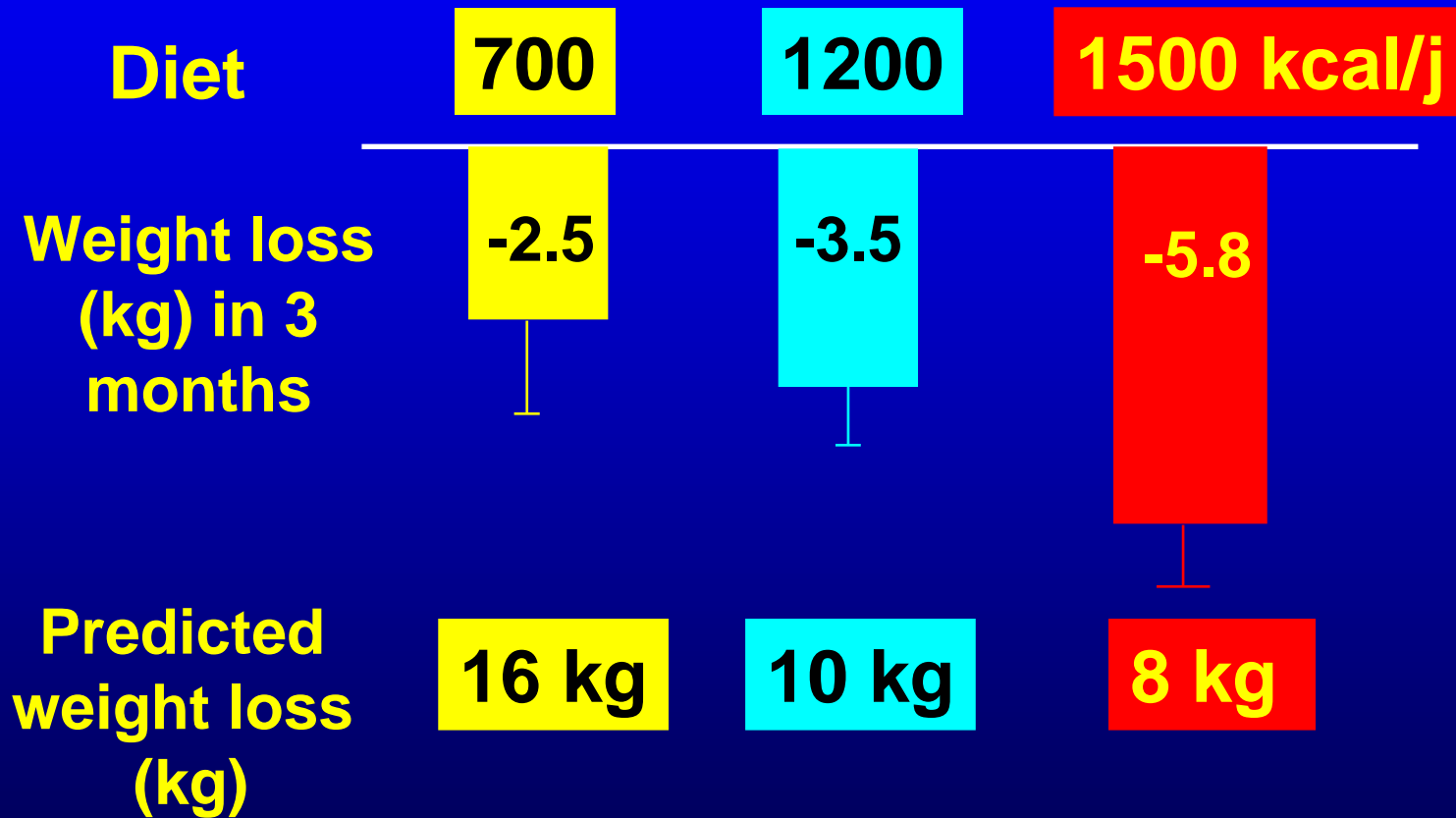
**Dissociated**

**Carbohydrates 45%**  
**Low in fat 30%**  
**Proteins 25%**

**Weight loss**

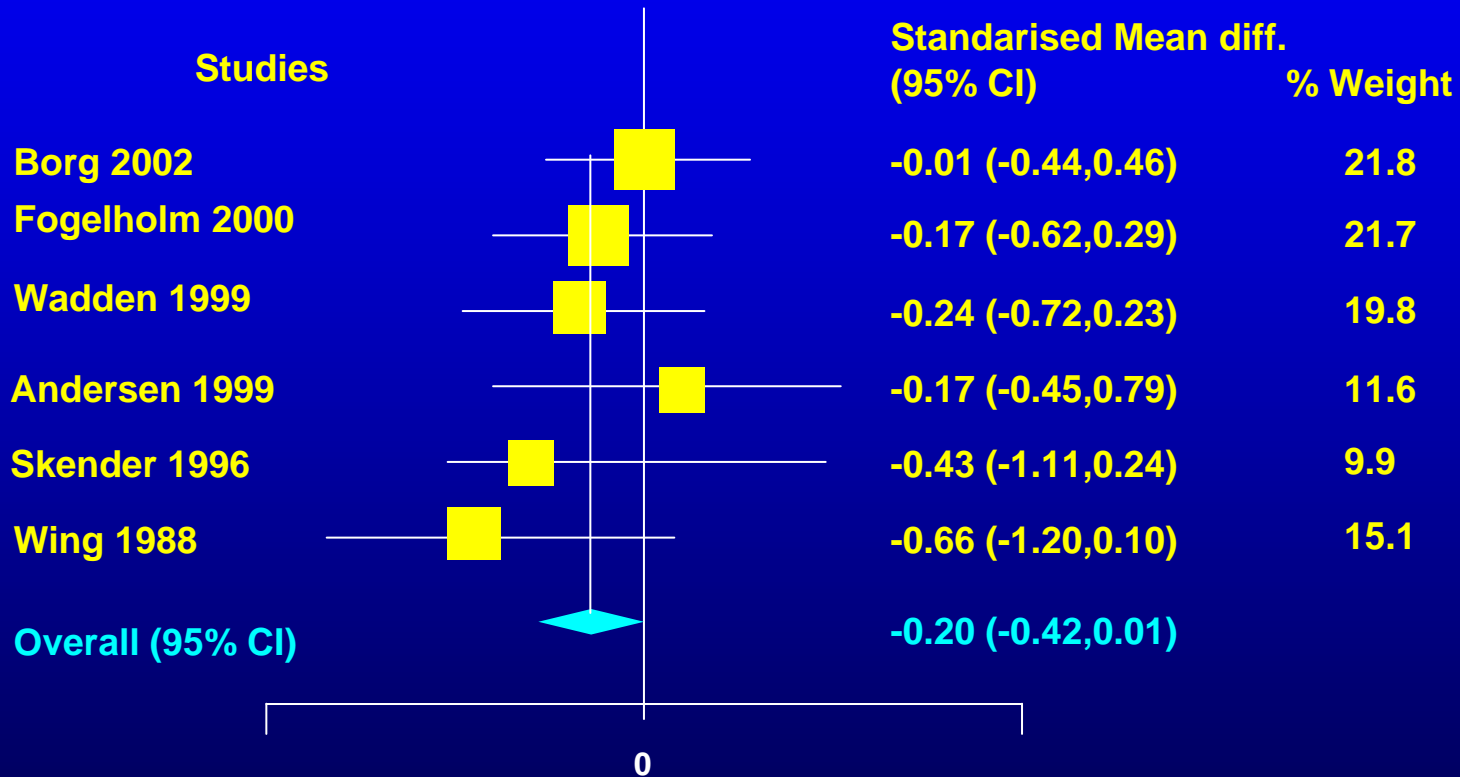
**6.7 ± 0.5  
kg**

# How many calories ?



# Long-term weight loss maintenance after diet and exercise vs diet alone

## Diet and Exercise vs. Diet alone

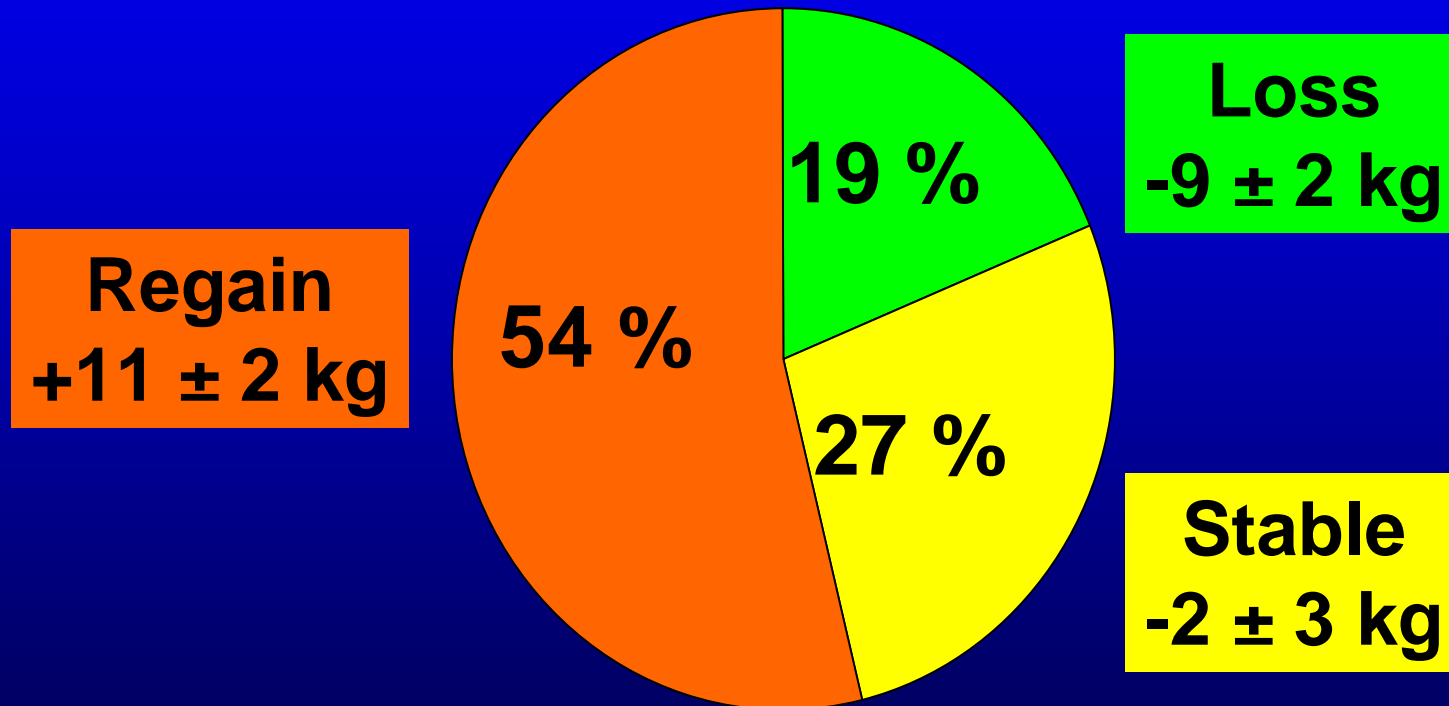


**Diet associated with exercise produced a 20 % greater sustained weight loss**

# Body weight evolution

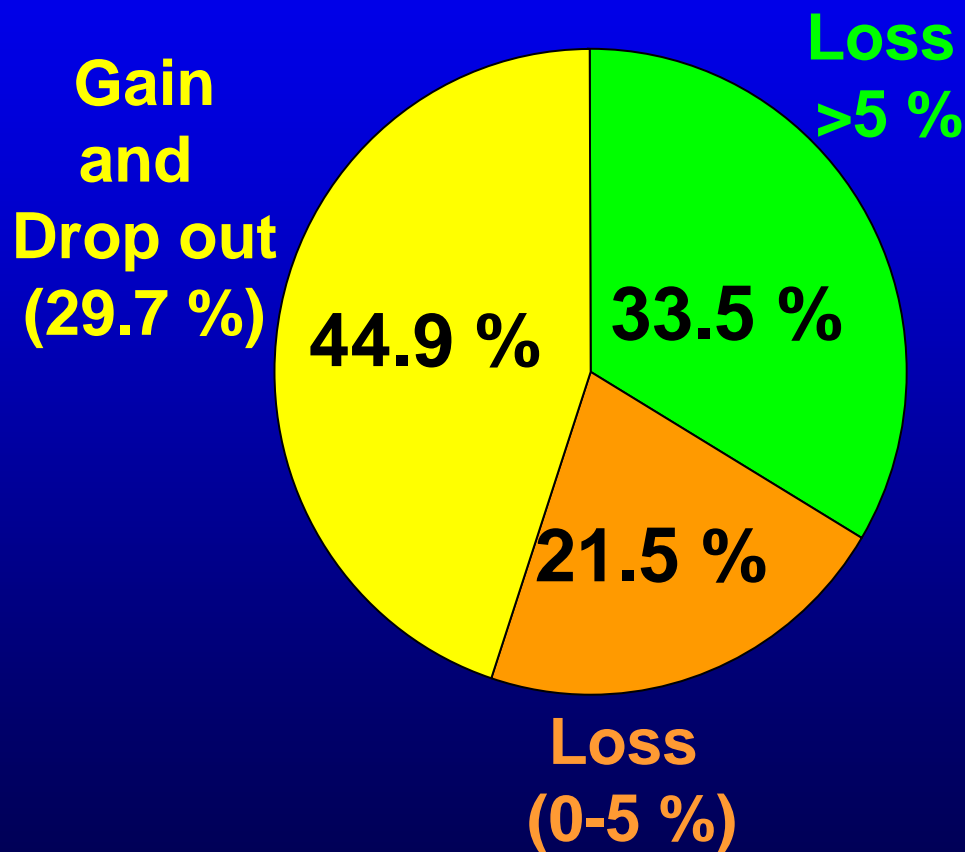
Five years with a patient education programme

N = 57, BMI 40.5 kg/m<sup>2</sup>; Weight loss program : 7.2 ± 0.8 kg



25.5 % of patients lost more than 10 % of their initial body weight five years later

# Predictors of non successful weight management

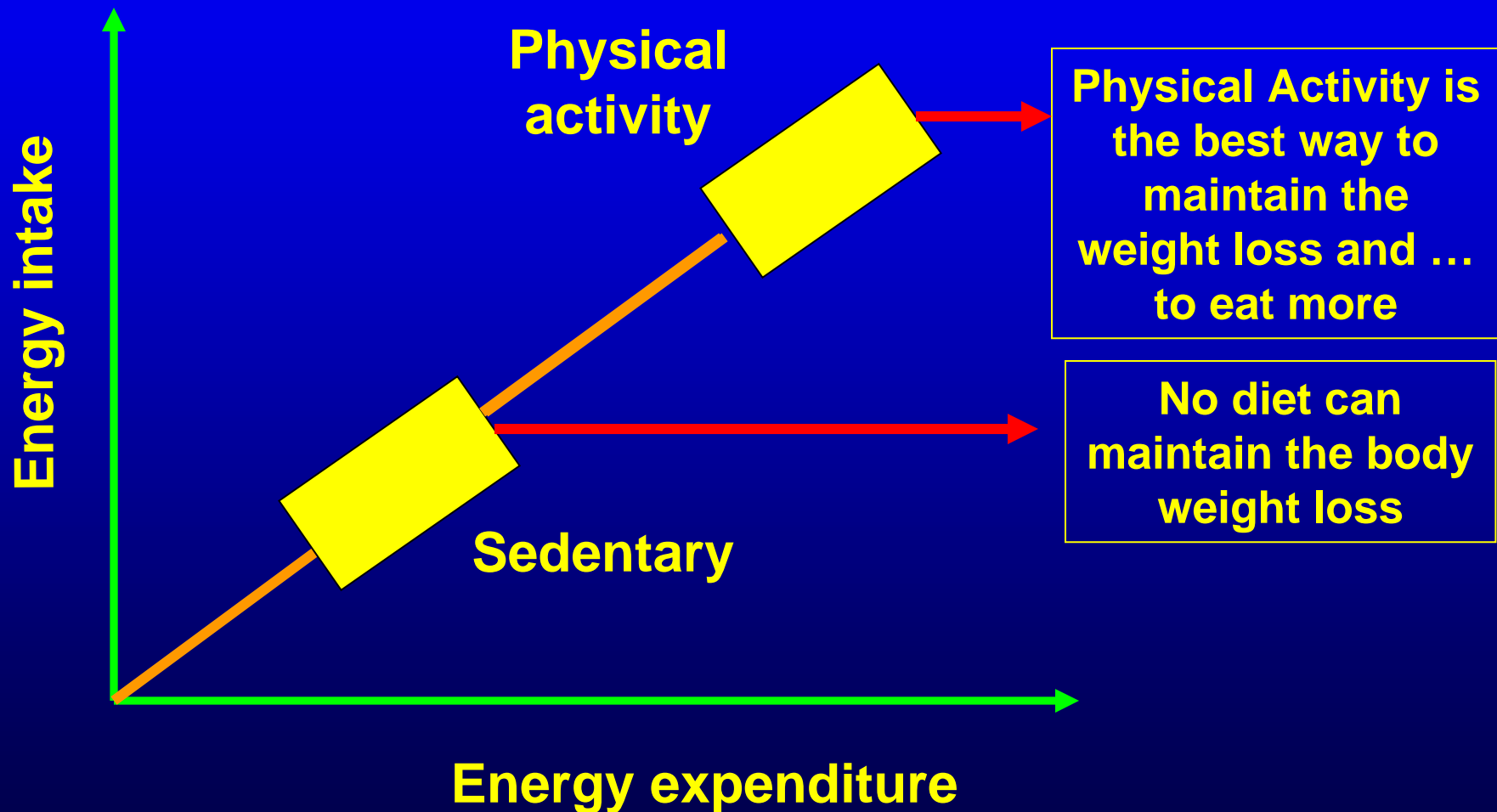


- Predictors (84 %)  $p < 0.001$ 
  - More previous dieting
  - Poorer quality of life
  - Lower reported carbohydrate intake
  - Lower exercise
  - Binge eating disorder
  - Psychological health problems
  - Poorer body image
  - Higher waist hip ratio

# Predictors of weight loss maintenance

- **Low fat diet but watching total calories (24% fat, 56% CHO)**
- **Frequent self monitoring (Food, Activity, weight records)**
- **Eat breakfast (78% >5/7 days)**
- **Physical activity (2700 kcal/w)**

# Physical activity is the best predictor to maintain body weight loss



# **Clinical aspects to detect an eating disorder**

- **Multiple diets**
- **Yo-yo phenomenon**
- **Feeling of restriction**
- **Confusion between hunger, satiety and anxiety**
- **Nibbling**
- **Link emotion-food**
- **50 % of obese subjects suffer from eating disorders**



# Stimuli inducing Compulsions

## Food

- sight of food
- hunger
- forbidden food
- shopping
- preparation of meals

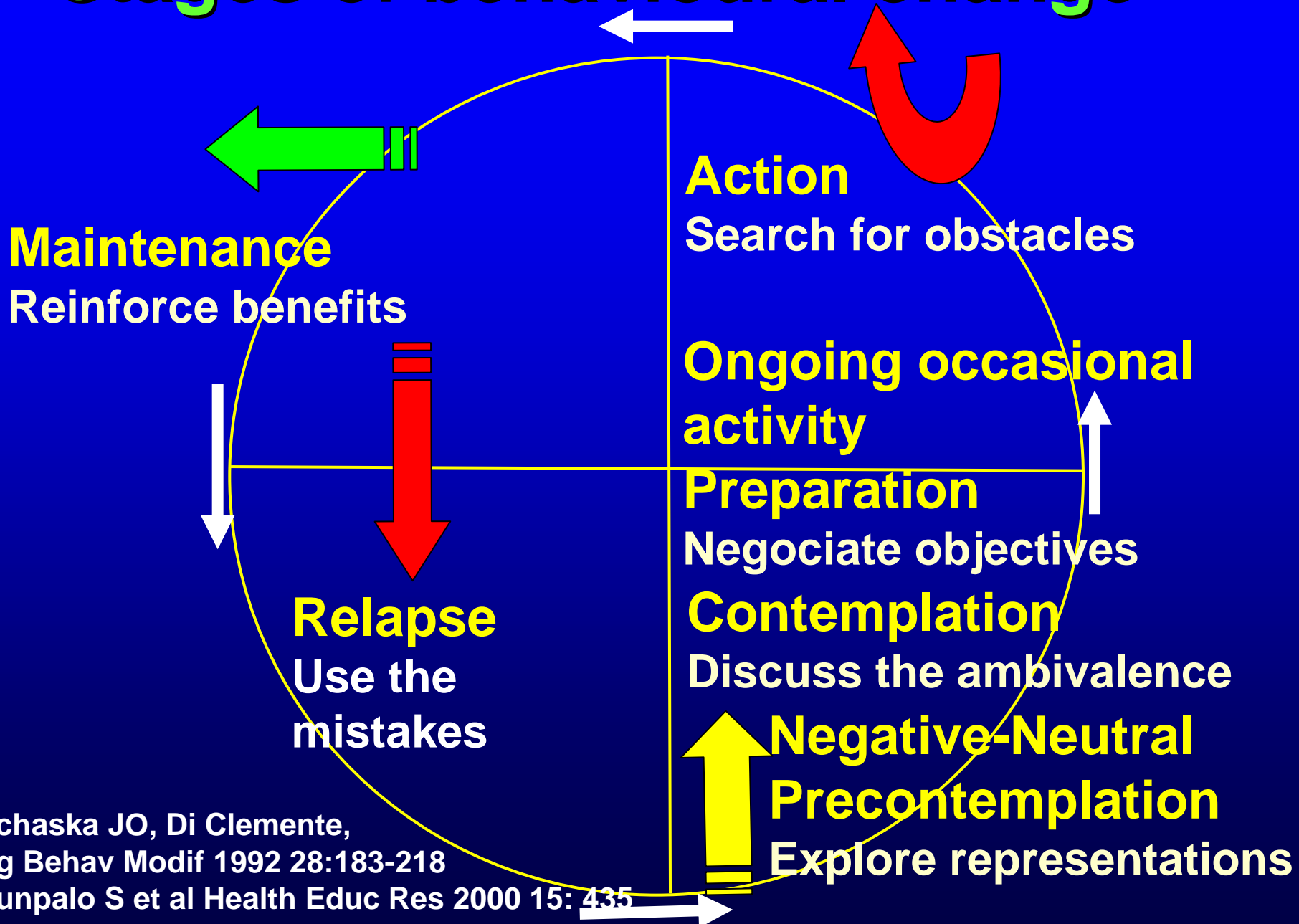
## Emotions

- stress
- tiredness
- boredom, troubles
- anxiety
- loneliness

# **Strategies to avoid or delay a compulsion**

- **To take care of oneself**
- **To go for a walk**
- **To do physical activity**
- **To relax**
- **To make a phone call**
- **To sit down and breathe deeply**
- **To take a bath**

# Stages of behavioural change

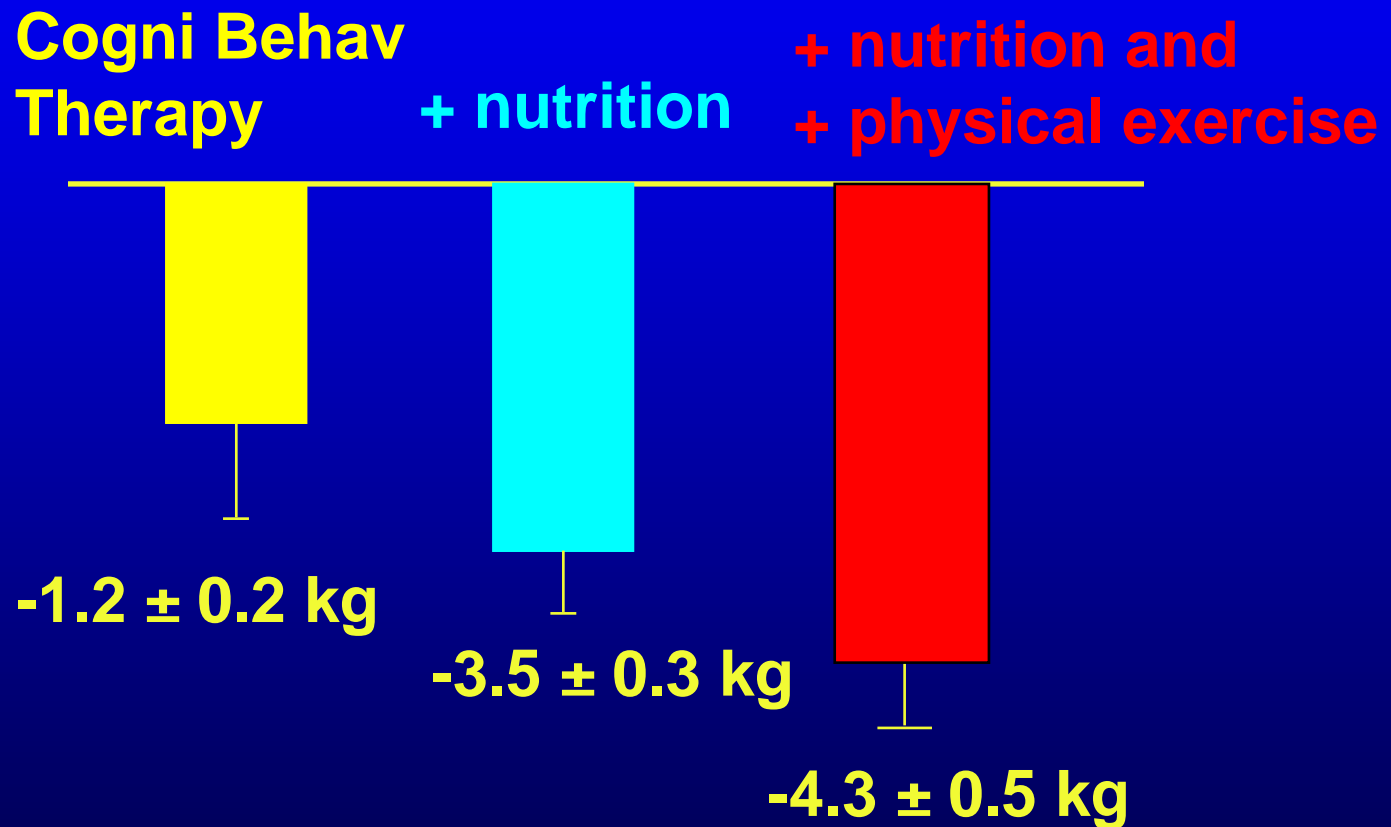


Prochaska JO, Di Clemente,  
Prog Behav Modif 1992 28:183-218

Miilunpalo S et al Health Educ Res 2000 15: 435

# Cognitive-behavioural therapy

N = 68, 12 group sessions weekly



D. Painot et A. Golay. Pat Educ Counsel. 2001, 42, 47-52

M. Fossati, A. Goly et al. Eating Weight Disord. 2004, 9, 134-138

# Meta-analysis : pharmacologic treatment of obesity

	Studies	Follow-up	Mean WL compared to placebo
Orlistat	n=22	12 months	-2.9
Sibutramin	n=29	44-54 weeks	-4.5
Fluoxetine	n=9	6-12 months	-4.2
Bupropion	n=3	6-12 months	-2.8
Topiramate	n=6	6 months	-6.5
Phentermine	n=9	2-24 months	-3.6
Diethylpropion	n=13	6-52 months	-3.0

# Meta-analysis : pharmacologic treatment of obesity

## Adverse event by drug

<b>Orlistat</b>	RR	<b>Sibutramin</b>	RR	<b>Fluoxetine</b>	RR
Diarrhea	3.4	SBP	4.6	Nervousness	6.4
Flatulence	3.1	DBP	2.8	Nausea, vomiting	2.7
Abdo pain	1.5	Heart rate	5.9	Asthenia, somnolence	2.4
				Insomnia	2.1

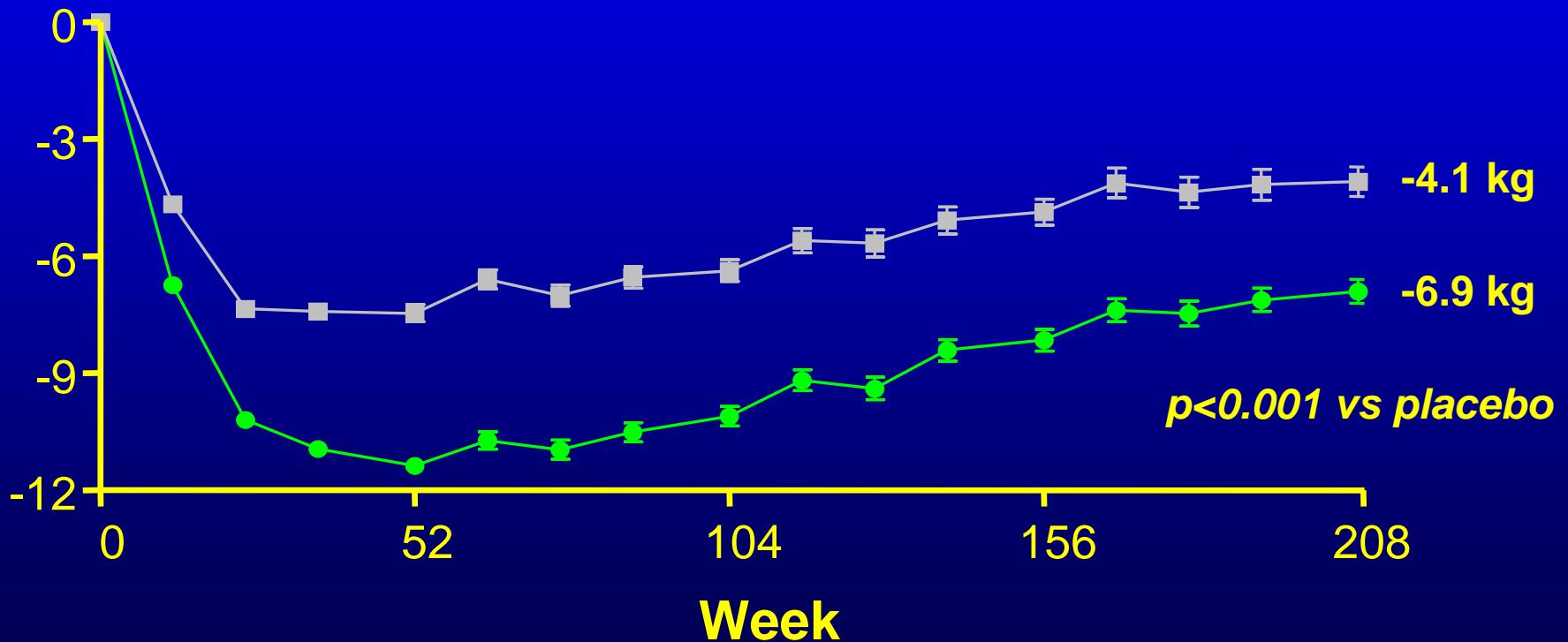
<b>Bupropion</b>	RR	<b>Topiramate</b>	RR
Dry mouth	3.0	Taste perversion	4.6
Diarrhea	1.3	Paresthesia	2.8
Constipation	1.3	Cent nervous syst	5.9

# XENDOS

## Effect of Xenical on body weight

Change in  
weight (kg)

—■— Placebo + lifestyle    —●— Xenical + lifestyle



*p < 0.001 vs placebo*

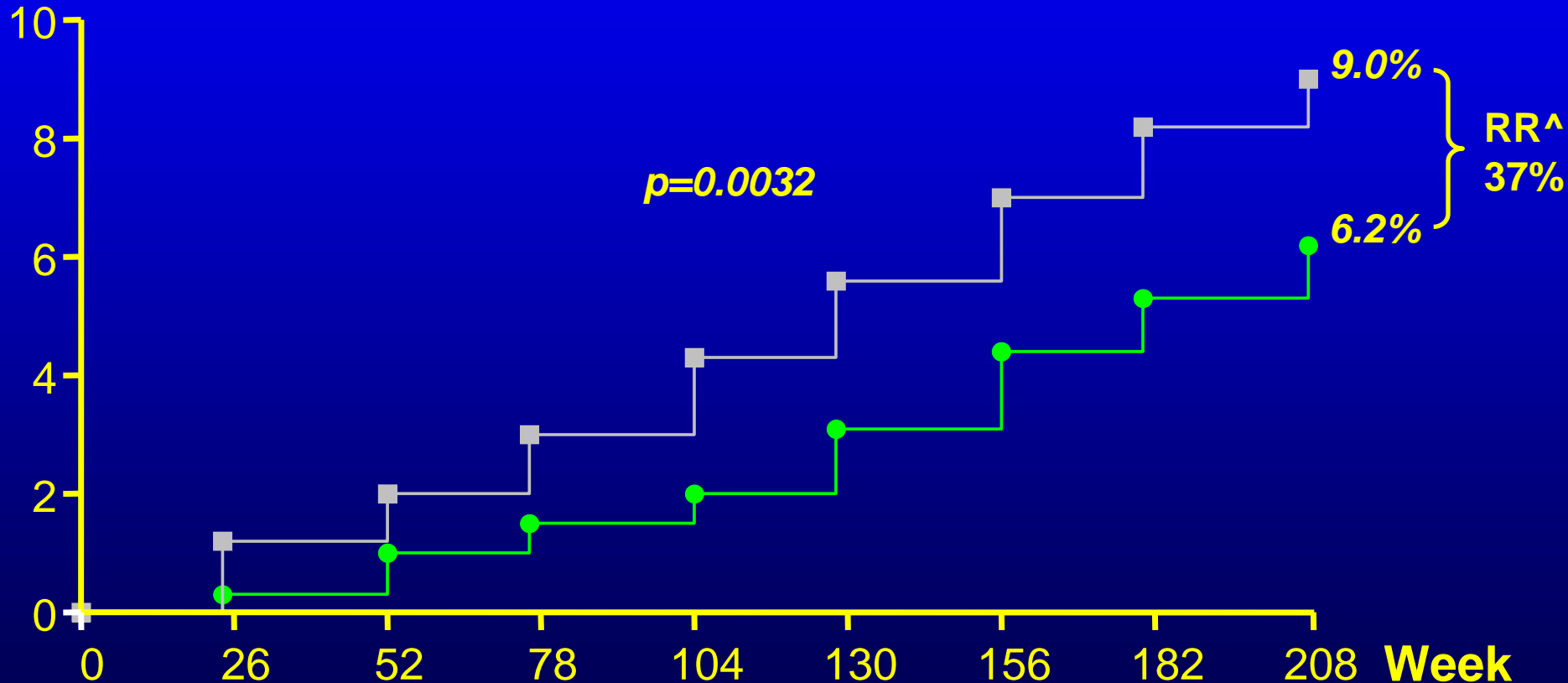
# XENDOS

## Cumulative incidence of type 2 diabetes

Incidence  
of T2D (%)

—■— Placebo + lifestyle

—●— Xenical + lifestyle





# **Cost-effectiveness for orlistat treatment in obese diabetic patients**

- **Meta-analysis from 7 randomized controlled clinical trials in obese patients with T2 diabetes with orlistat (n=1249) and with placebo (n=1230). Markov Health Economic model for 11 years.**
- **Weight reduction –8.6 kg, 23 % with > 5% weight loss, HbA1C –1.16 %, cholesterol –5.3%, SBP –5.2 mmHg.**
- **The base-case economic analysis revealed cost gain of Euros 13'600/year in Switzerland and Euros 14'000/year in Sweden.**

# Weight loss 8.6% : financial save

	During 9 months before	During 9 months after	Difference
Medical costs induced by physicians	€64 101	€56 253	- €7 848
Medical direct costs	€18 341	€16 686	- €1 655
Paramedical direct costs	€10 005	€ 9 142	- € 863
Indirect costs: days out of work	12 649	5 377	- 7 272
<b>TOTAL Save</b>	<b>€115101</b>	<b>€87458</b>	<b>€17 638</b>

**The total save is: €480 per patient per year (17%)**

# Weight loss and mortality

Prospective study in 15 069 obese patients with complications

Effect of > 9,1 kg weight loss maintained 10 years

## Mortality

## Reduction of mortality

total

~ 20 %

cardiovascular

~ 10 %

cancers

~ 30 %

# **A « 80/20 » lifestyle**

**To avoid the « all or nothing »  
attitude**

- **80 % of control**  
(amount and type of food in real life)
- **20 % of less control on special occasions**  
(weekends, holidays, etc.)

# Avoid a relapse

Look for a warning system which informs of the loss of control :

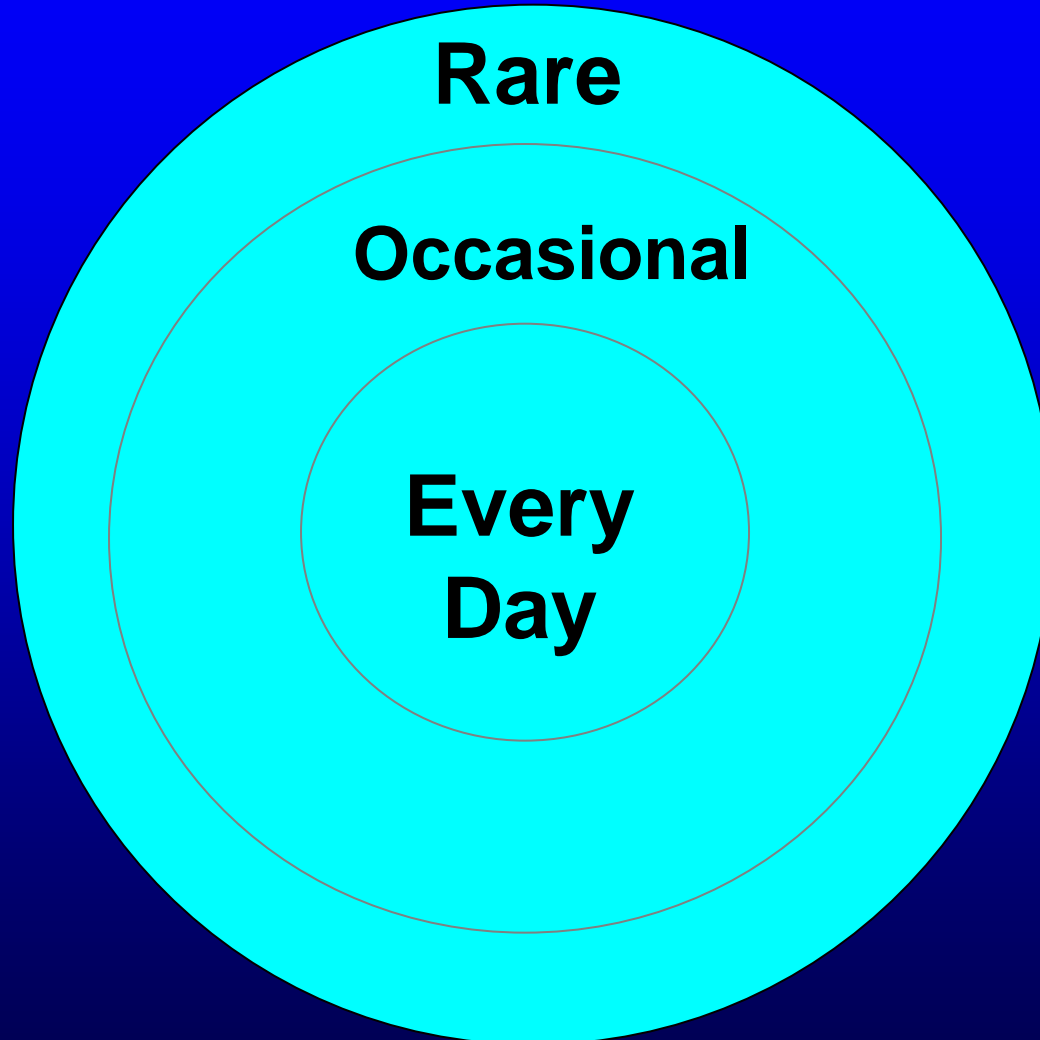
**No more than  
3 red flags**

**3 times in a row**

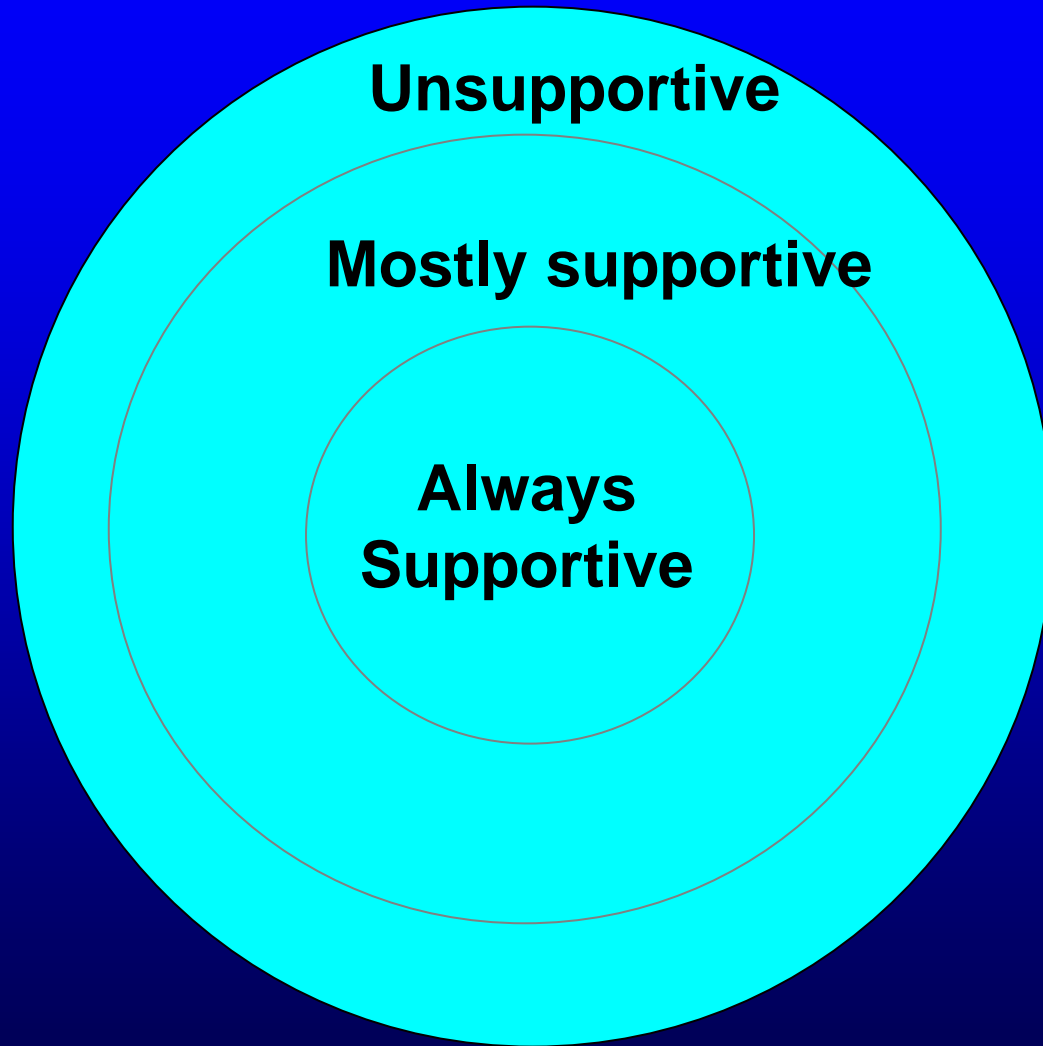
**3 days in a row**

**3 days of holiday**

# No Forbidden food



# Look for external support



**Careful with sabotaging environment !**

# Summary

- **Patient centered approach**
- **Diets always works**
- **Combination of low fat diet, daily physical activity and behavioural modifications to maintain a weight loss**
- **A modest weight loss induces a major benefit**
- **Propose a 80/20% lifestyle**



# Conclusions

- **Patient education with and cognitive-behavioural therapy can be applied by all Health Care Providers**
- **These approaches combined with physical activity and low fat diet are effective in long term weight loss / maintenance for obese patients suffering from eating disorder**

**Thanks to all my collaborators**

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