



Increased happiness to facilitate long-term Calorie Restriction

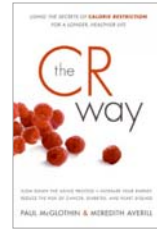
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The CR Way to Happy Dieting

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Questions

- What is Calorie Restriction?
- Why do we do it?
- How do we do it?
- How do we deal with challenges like hunger?

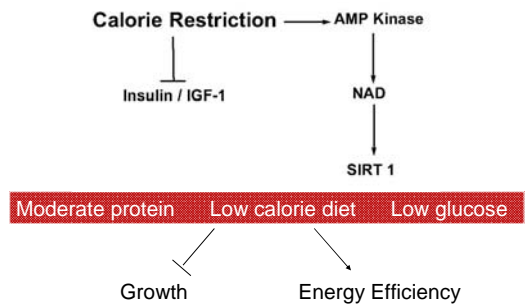


What is calorie restriction?

Low calorie diet?



What is calorie restriction?





Why do we do it?

Robust Health!

- Slowed cardiovascular aging
- Lower blood pressure
- Reduced cholesterol/LDL/triglycerides
- Decreased arterial plaque formation
- Lower glucose levels
- Less inflammation
- Lower levels of growth factors
→ reduced cancer risk
- Better cognition
- More energy

Increased Life Expectancy

Elderly Okinawans -
11% CR for 60 years

Life expectancy at age 65 –
highest in Japan, possibly the
world

Females

89.1 years

Males

83.5 years

Willcox BJ, Willcox DC, Todoriki H, Fujiyoshi A, Yano K, et al:
Caloric Restriction, the Traditional Okinawan Diet, & Healthy Aging
Annals of the N.Y. Academy of Sciences. 2007
Oct;1114:434-55.



How do we do it?

Increase happiness **Before** limiting calories. Which face are you?



Happy



Good



Okay



Unhappy



Miserable



Depressed

Food log

All Foods	Tease	Breakfast	Lunch	Dinner	Snack	Calories	Meal
Food /							
SHIRLEY						394	Lunch
lemon juice, canned or bottled			14 grams			3	Lunch
olive oil, extra virgin			14 grams			120	Lunch
Pizza Lentils			1.00 servings			99	Lunch

Calories: CPP: 60-12-27
Target: 65-10-25



How do we do it?

6 Steps to Increased Happiness



Step 1 Increase serotonin

Low serotonin → Depression • Anxiety • Obsessive-compulsive disorder

Higher serotonin → Happiness • Satiety • Better sleep

Relaxation Soup

Ingredients

- 1 cup Very Veggie® Organic, Low Sodium vegetable cocktail
- 1½ teaspoons Extra Virgin Olive Oil
basil-flavored if available





Step 2 Increase EPA



Eicosapentaenoic acid
(EPA from fish oil)

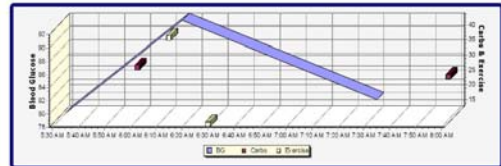


Step 3 Lower glucose for higher BDNF*

Paul McGlothlin - DETAILED GLUCOSE TRACKING REPORT

Tuesday, January 26, 2010

DATE	78 mg/dl
5:30 AM	Tease, Carbs: 31g (Sugar 5g; Fiber 4g), CPF: 63-11-26
6:00 AM	92 mg/dl, After 45 minutes
6:15 AM	Rowing machine, moderate intensity, 7 minutes, 43 calories
6:30 AM	Calisthenics, 5 minutes, 14 calories
7:30 AM	80 mg/dl, After 15 minutes exercise
8:00 AM	Breakfast, Carbs: 28g (Sugar 7g; Fiber 24g), CPF: 31-23-46



DAILY SUMMARY

Highest_BG	Lowest_BG	Average_BG	Below_60	Above_200	%_in_(70-140)
92	78	83	0	0	100%

* Brain Derived Neurotrophic Factor



Step 4 Savor the Flavor

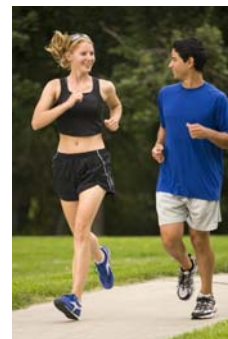
...every bite – a delicious, satisfying experience



Savoring Meditation



Step 5 Increase Endorphins





Step 6 Increase positive feelings with Centering Meditation



Feeling happy?

Time to start!



Goals

Healthful weight loss?

Disease prevention or intervention?

Optimal living – Realizing full potential *now*, with expectation of a long, healthy life?

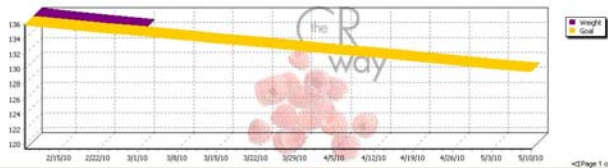


Tracking produces success

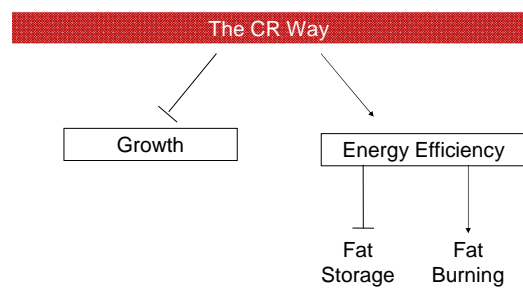
- Motivation
- Reinforcement of goals



Weight vs. Goal graph



The CR Way™





How do we deal with challenges like hunger?

Conventional dieters

- Suffering
- To be avoided
- The enemy



Hunger is:

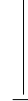
The CR Way followers

- A sign that it's working!
- A benefit to the heart and brain
- A longevity intervention
- A GOAL



Ghrelin & mTOR

Ghrelin



mTOR

- Hunger increases ghrelin.
- Ghrelin deactivates mammalian target of rapamycin (mTOR) - a major aging pathway



Making it fun!

Hedonic principles integrated into recipes*

- Visual appeal
- Pleasing aroma
- Contrasting textures, taste, and flavors
- A different kind of mouthfeel – vegetable spreads with whole vegetables and nuts

*David Kessler, *The End of Overeating*, 2009, Rodale Press



Questions?



The CR Way to
HAPPY DIETING

*Happy
Healthy
Delicious*

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