



Non-pharmacological approaches for obesity management

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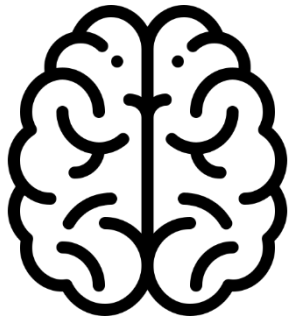
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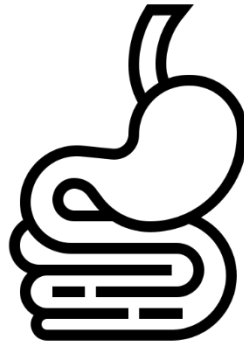
Obesity Type

Factors Into Weight Loss Success



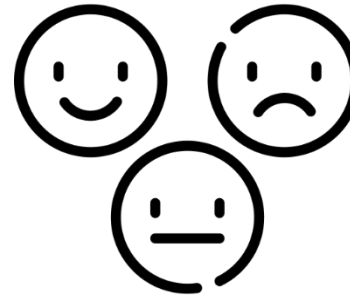
HUNGRY BRAIN

"When these patients start eating, they go for seconds and thirds and don't feel full. They usually don't feel hungry, but **once they start eating, they cannot stop.**"



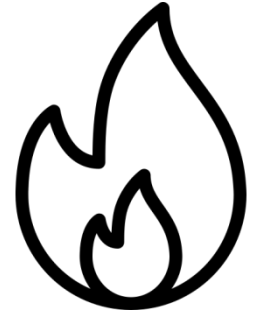
HUNGRY GUT

"These folks eat to normal fullness and **within an hour or two they start feeling hungry again.** The gut is not giving the signal to the brain."



EMOTIONAL HUNGER

"They eat for reward and sensations. Some call this '**food addiction.**' "



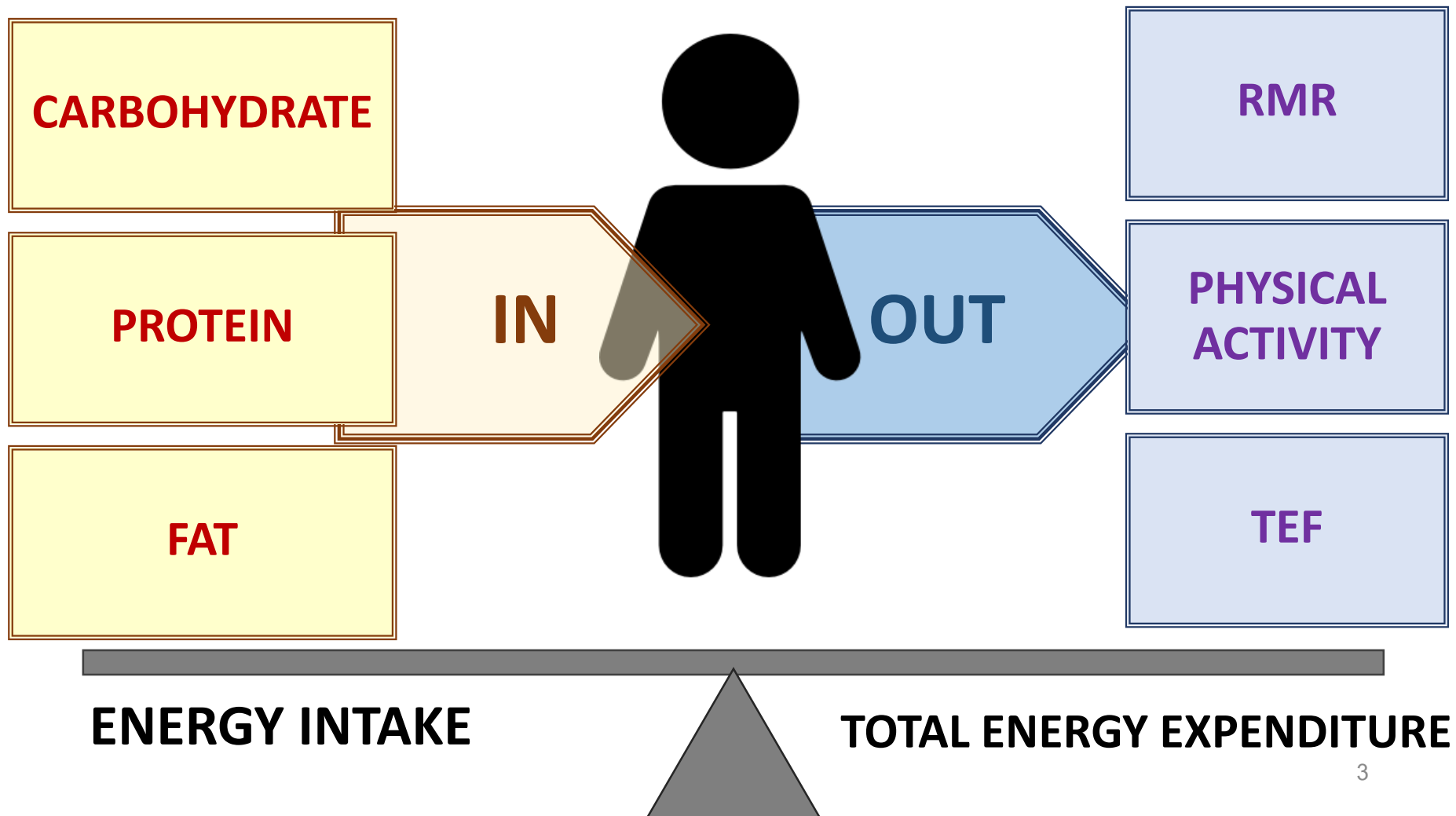
SLOW BURN

"These patients have **a faulty metabolism** and aren't burning calories efficiently."



Energy balance

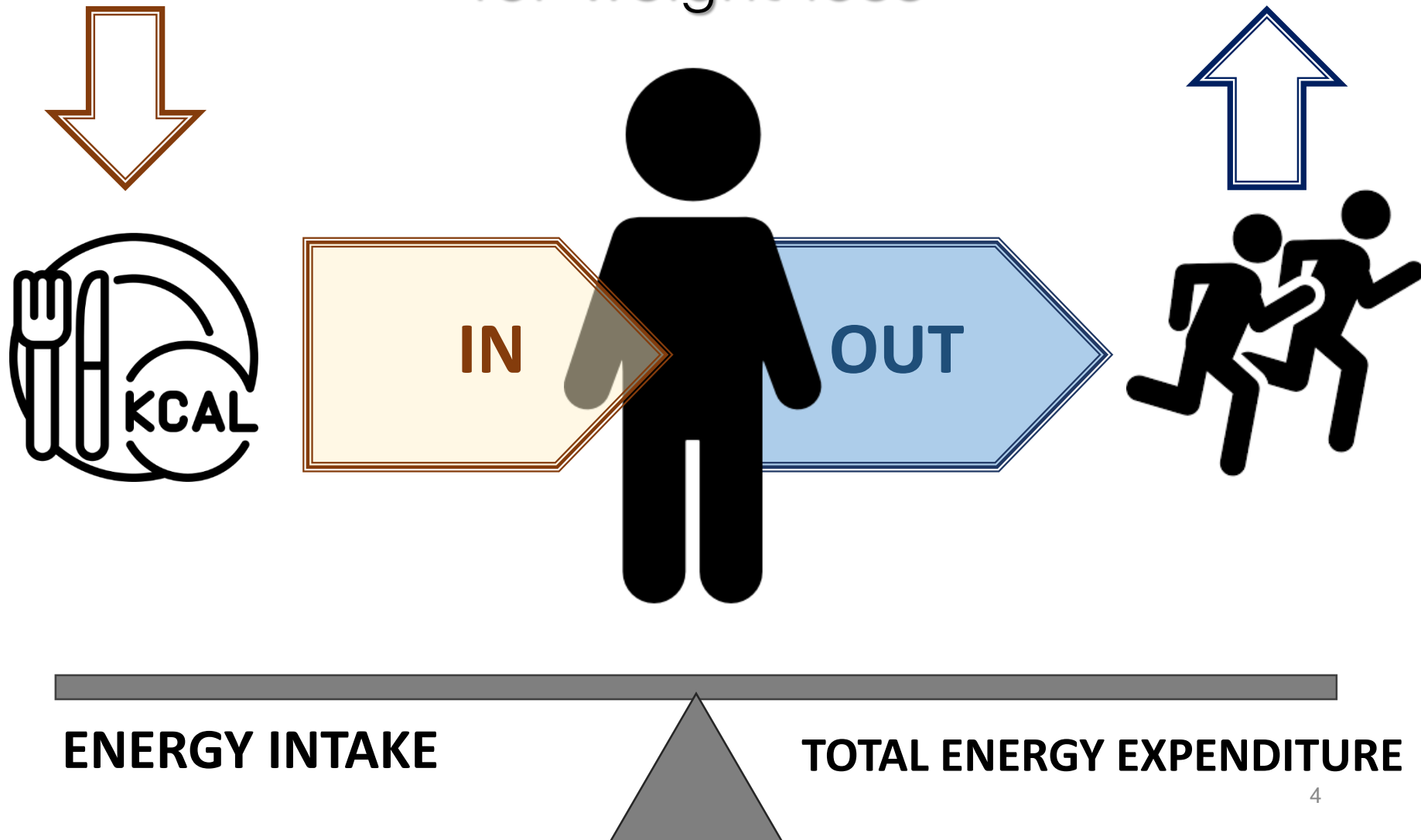
for weight control





Energy balance

for weight loss





Weight management trends

- **Manipulation of macronutrient contents**
(i.e., low-fat diet, low-carb diet)
- **Restriction of specific foods and/or food groups**
(i.e., vegetarian, DASH, Mediterranean diet)
- **Manipulation of timing**
(i.e., intermittent fasting)



Comparison of dietary macronutrient patterns of 14 popular named dietary programmes for weight and cardiovascular risk factor reduction in adults: systematic review and network meta-analysis of randomised trials

Ge L, et al. BMJ 2020;369:m696.



P 121 RCTs

21,942 adults (≥ 18 years)

overweight (BMI 25-29 kg/m²) or obese (≥ 30 kg/m²)

I

Type of diet	Carbohydrates, % kcal	Protein, % kcal	Fat, % kcal
Low carbohydrate	≤ 40	~ 30	30-55
Moderate macronutrients	~ 55-60	~ 15	21-30
Low fat	~ 60	~ 10-15	20

C Usual dietary habits, dietary advice

O Weight loss, BP, Lipid profiles, CRP



Macronutrient pattern on weight loss at 6 months

Usual diet				
0.02 (-1.71 to 1.76)	Dietary advice			
4.37 (3.03 to 5.74)	4.35 (2.56 to 6.15)	Low fat		
4.63 (3.42 to 5.87)	4.61 (3.01 to 6.23)	0.26 (-0.92 to 1.45)	Low carbohydrate	
3.06 (2.04 to 4.10)	3.04 (1.60 to 4.48)	-1.31 (-2.40 to -0.22)	-1.57 (-2.29 to -0.86)	Moderate macronutrients

High certainty

Moderate certainty

Low certainty

Very low certainty

Values correspond to difference in median weight loss between column and row at six months, (eg, low fat had a median weight loss of 4.37 kg at six months compared with usual diet).

Values in bold indicate a statistically significant treatment effect



Macronutrient pattern on weight and CV parameters at 6 months

		Diet v usual diet	Weight loss (kilograms)	Systolic blood pressure reduction (mm Hg)	Diastolic blood pressure reduction (mm Hg)	Low density lipoprotein reduction (mg/dL)	High density lipoprotein reduction (mg/dL)	C-reactive protein reduction (mg/dL)
LC		Atkins	5.46	5.14	3.30	-2.75	3.41	0.64
		Zone	4.07	3.46	2.33	-2.89	-0.33	0.27
Mod		DASH	3.63	4.68	2.84	3.93	-1.90	NA
		Mediterranean	2.87	2.94	1.03	4.59	-0.61	0.25
		Paleolithic	5.31	14.56	3.85	7.27	-2.52	0.52
		Low fat	4.87	3.95	2.22	1.92	-2.13	0.33



“Almost all dietary patterns and popular named diets showed **a minimally clinical important weight loss of 2.0 kg compared with a usual diet for up to 12 months.**

The evidence was inadequate to recommend any particular diet.”

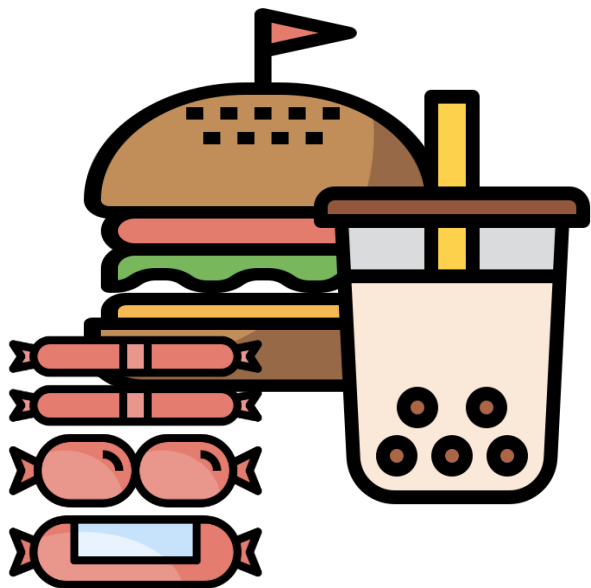


>> Adherence to the diets

Reducing dietary energy intake
—regardless of macronutrient composition—

Amount and quality of diets together with
exercises are more important.

Encouraging a modest 5-10% loss in BW
Focusing on how to maintain any weight loss
achieved



500 kcal



500 kcal



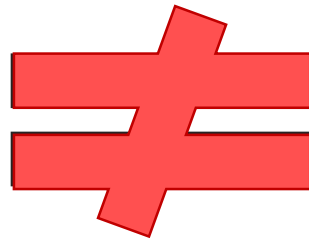
salt

preservatives



sugar

saturated fatty acids



fiber

micronutrients



phytochemicals

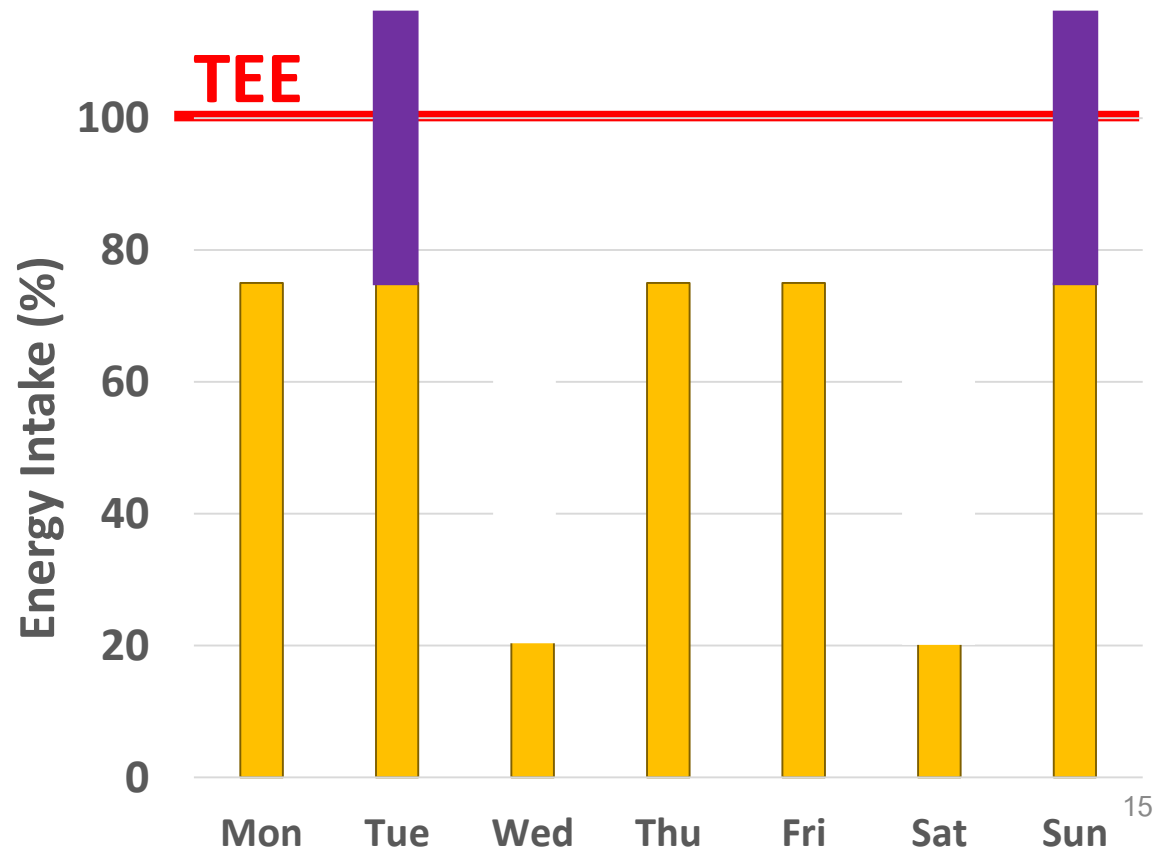
mono/polyunsaturated
fatty acids

Adherence to diets



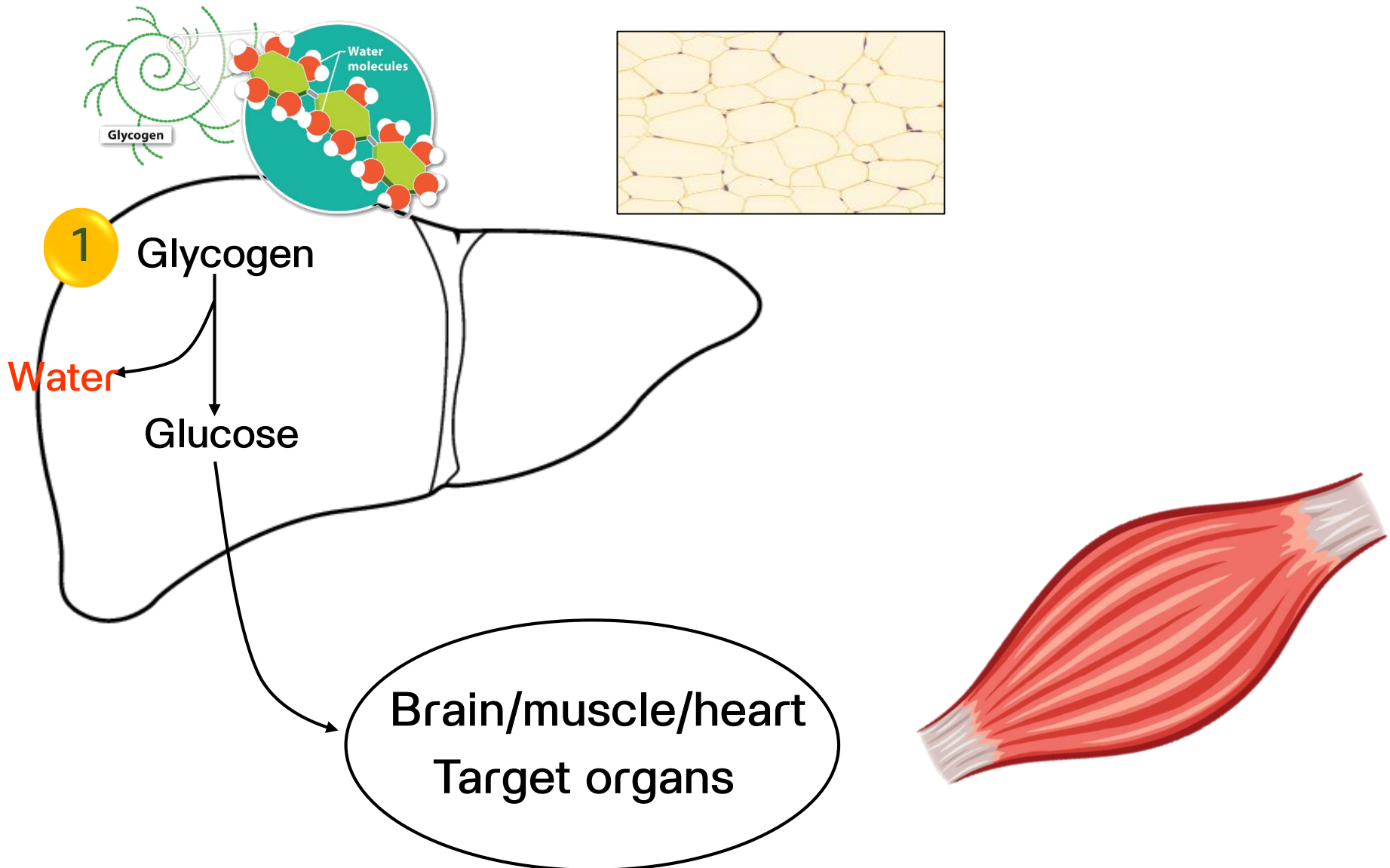
Intermittent Energy Restriction

- Diet pattern contains “Fed/Feast” and “Fast” periods
 - Fed ad libitum **or** energy intake 125-150% TEE
 - Fast no calorie **or** energy intake less than 25% TEE



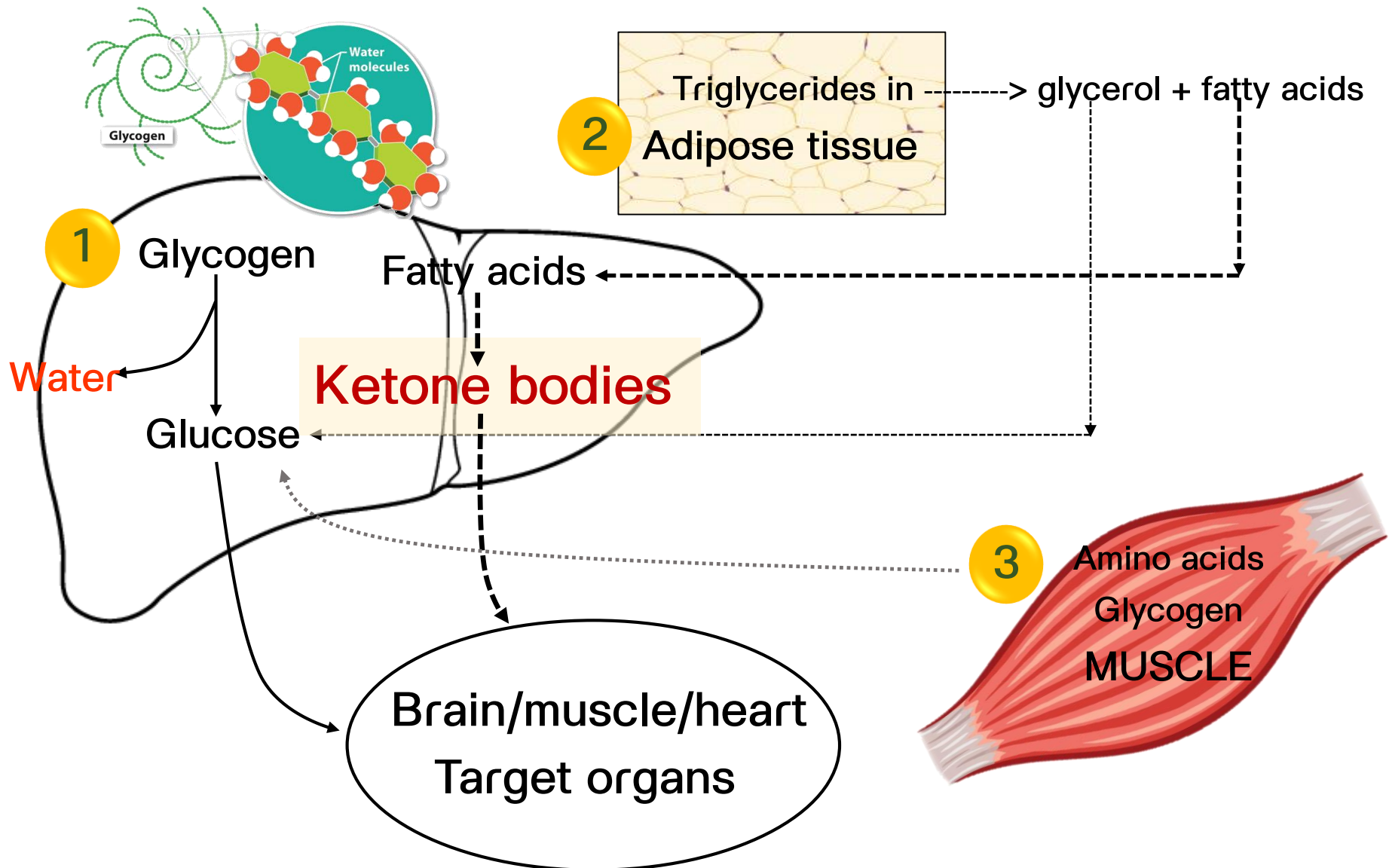


Fasted State Metabolism





Fasted State Metabolism





Common side effects of IF

- Hunger
- Irritability
- Lack of concentration
- Dizziness
- Headache
- Nausea
- Sleep disturbance



Cautions of IF

- Pregnant, Breastfeeding, Children
- Elderly with polymorbid
- Diabetes treated with insulin or oral hypoglycemic agents
- Eating disorders
- Psychiatric conditions
- Genetic disorders of macronutrient metabolism
- Cirrhosis
- Uncontrolled hypo/hypertension
- Current GI symptoms



ทำอะไร?

How



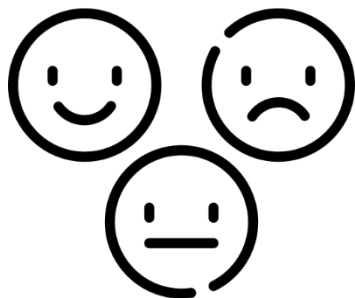
ได้ผลไหม?

Efficacy



ต้องระวังอะไรหรือเปล่า?

Safety



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