

The Inflamed Body

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Inflammation

- Acute Inflammation

- Short-term process occurring in response to tissue injury:
Redness, Swelling, Heat and Pain

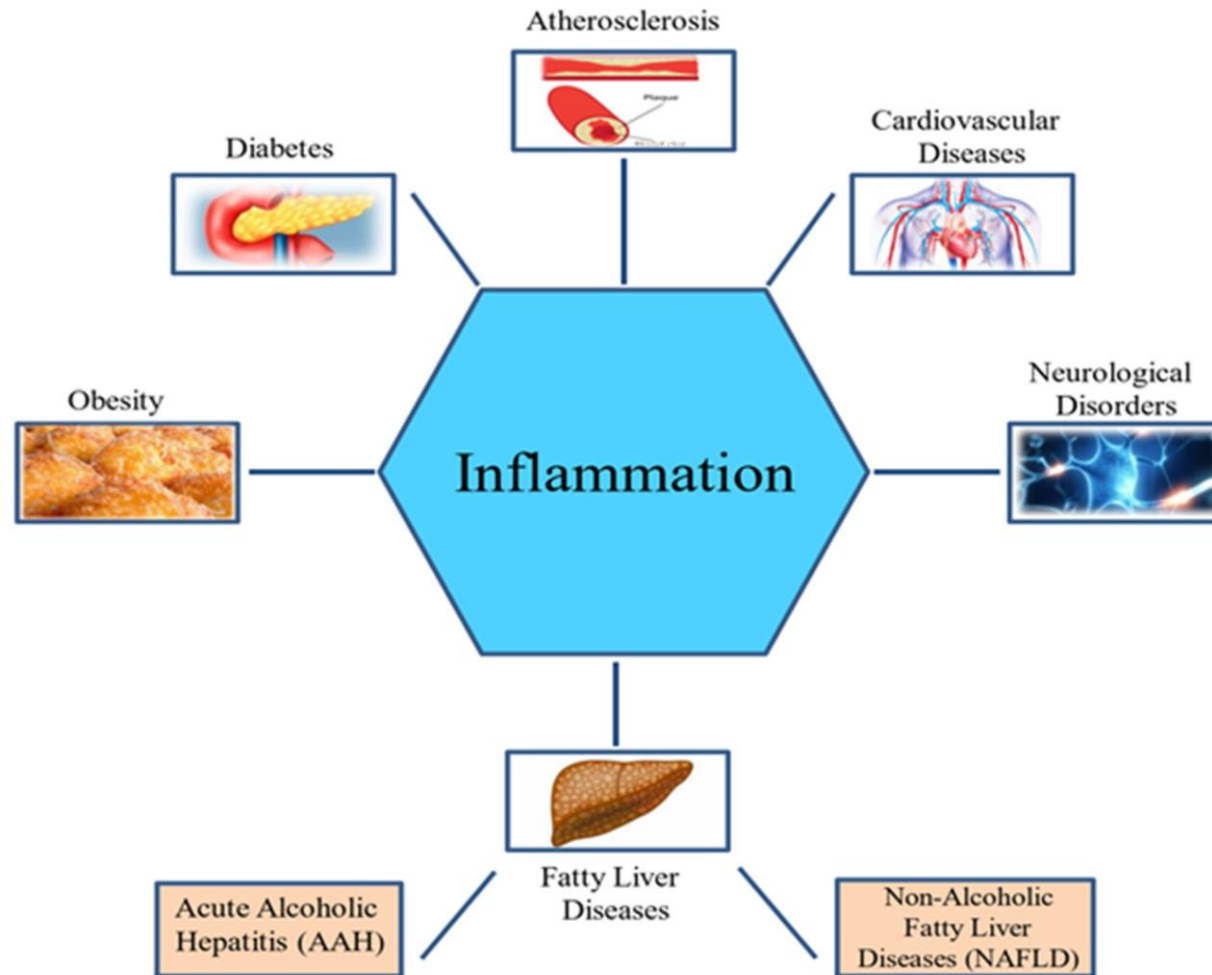


- Chronic Disease and Inflammation

- Low grade inflammation is an immune system response.

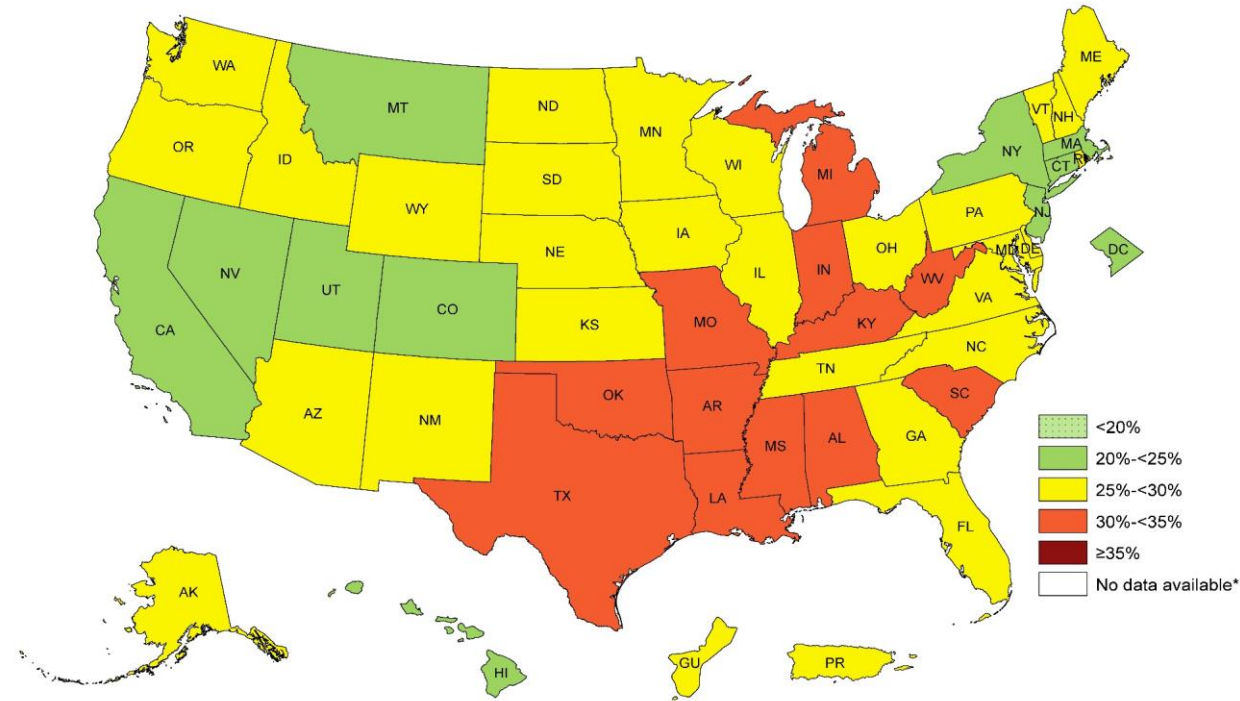


Inflammation



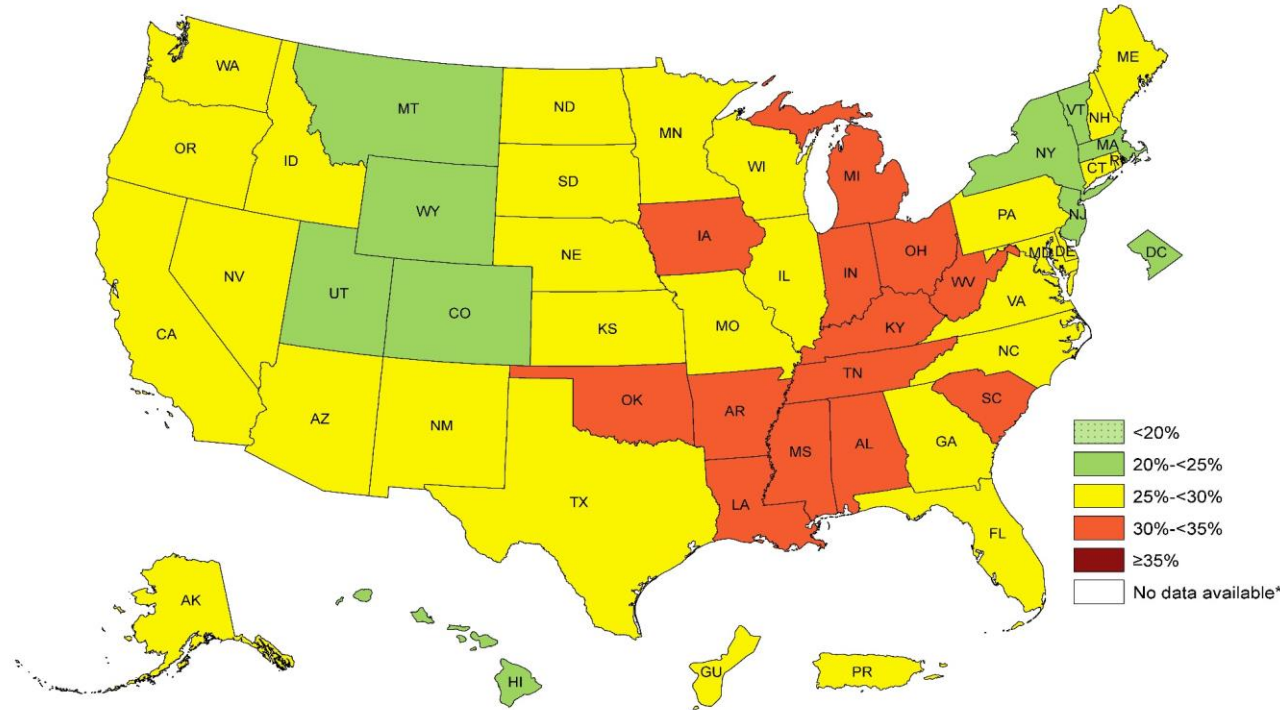
Prevalence[¶] of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2011

[¶] Prevalence estimates reflect BRFSS methodological changes started in 2011. These estimates should not be compared to prevalence estimates before 2011.



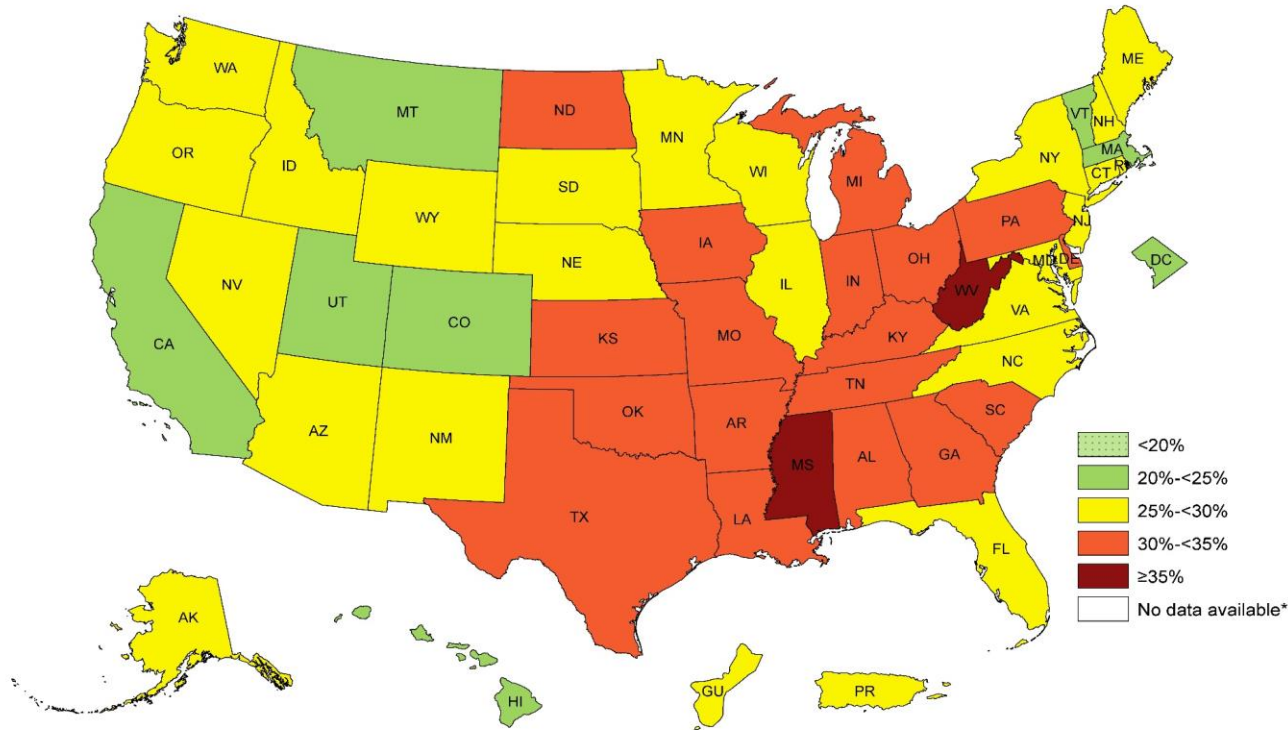
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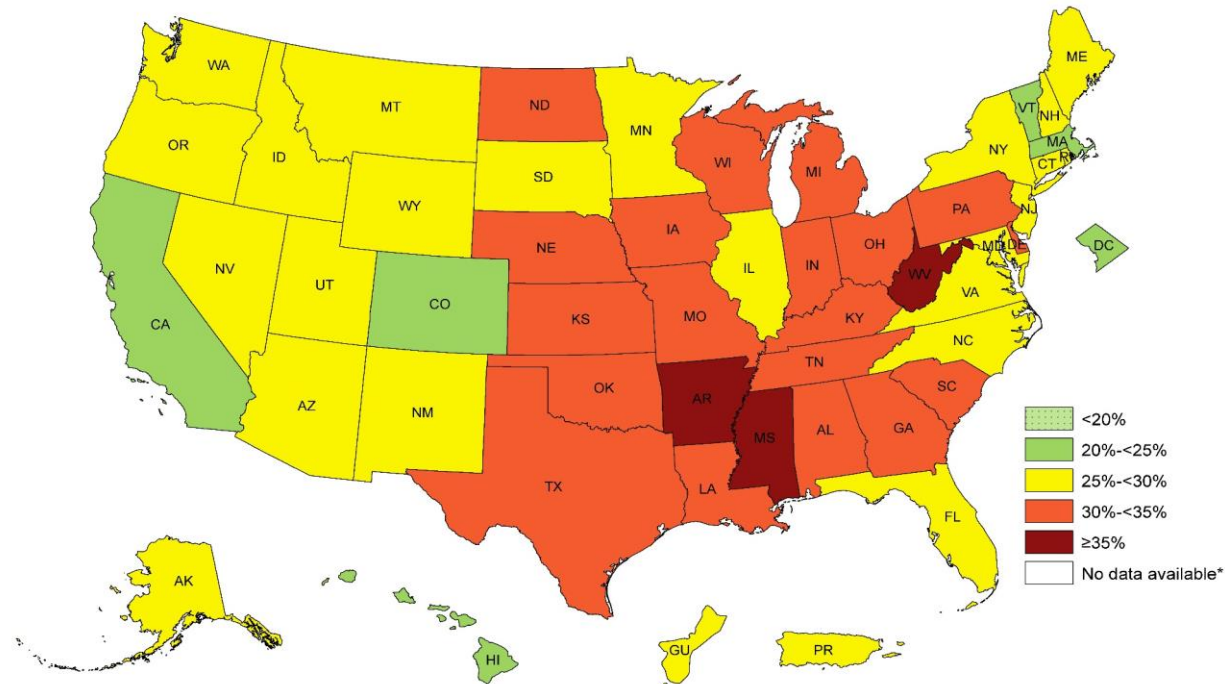
Prevalence[†] of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2013

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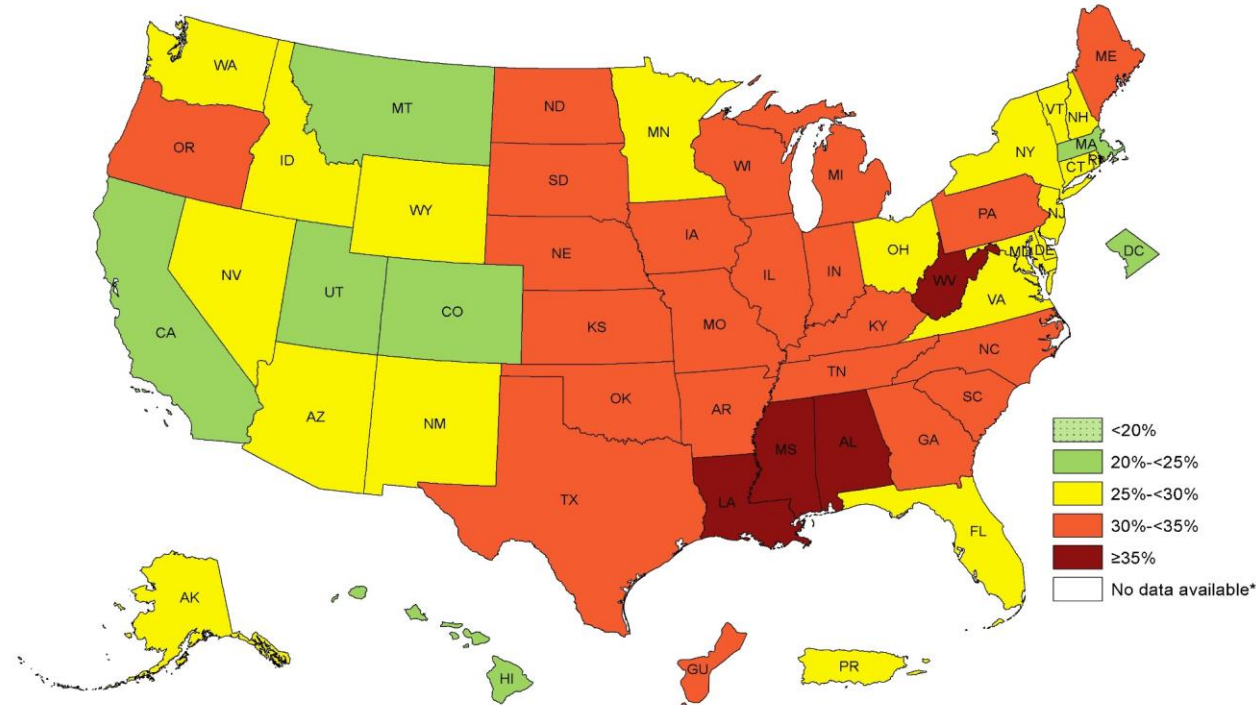
Prevalence[¶] of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2014

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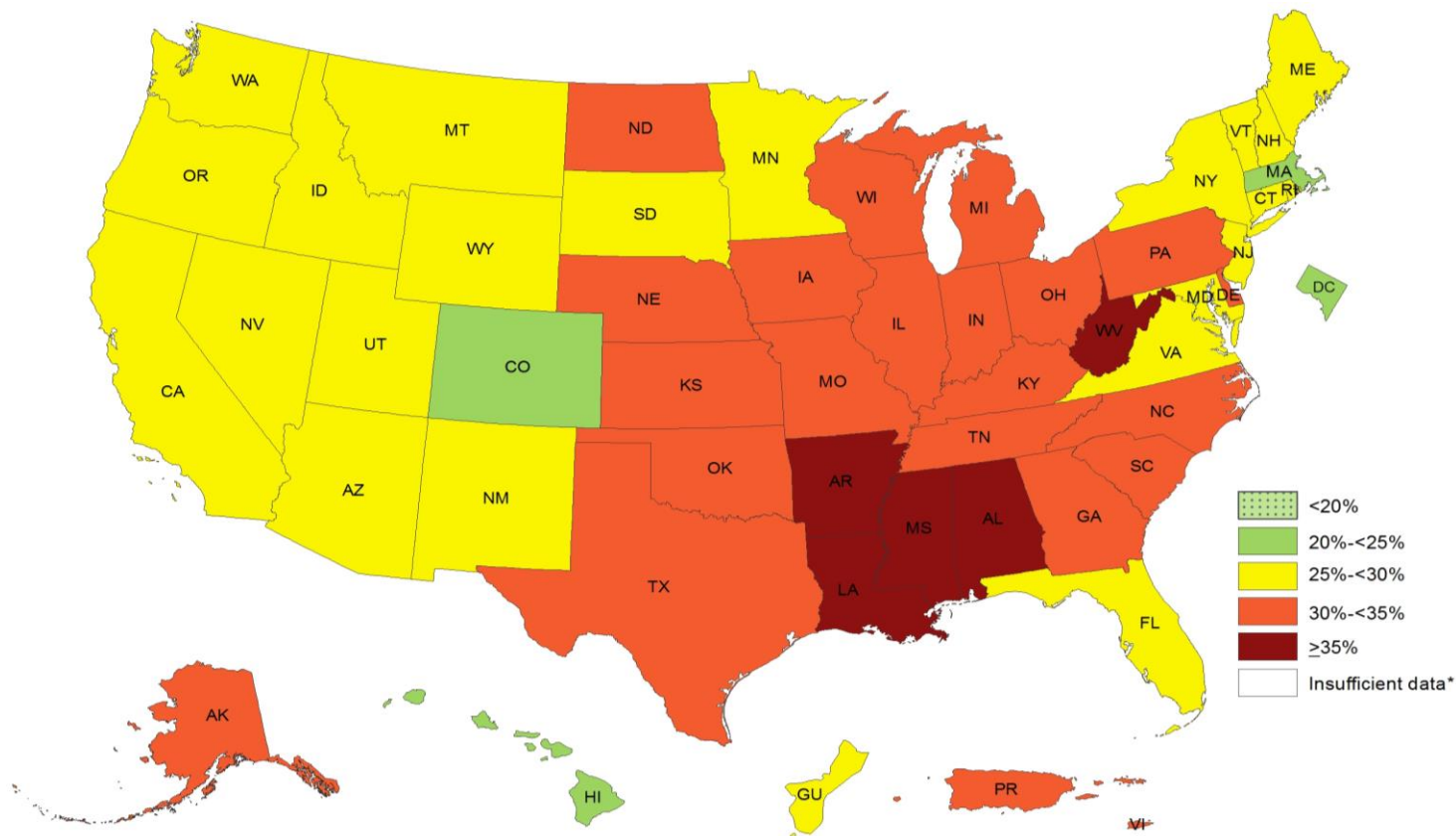
Prevalence[¶] of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2015

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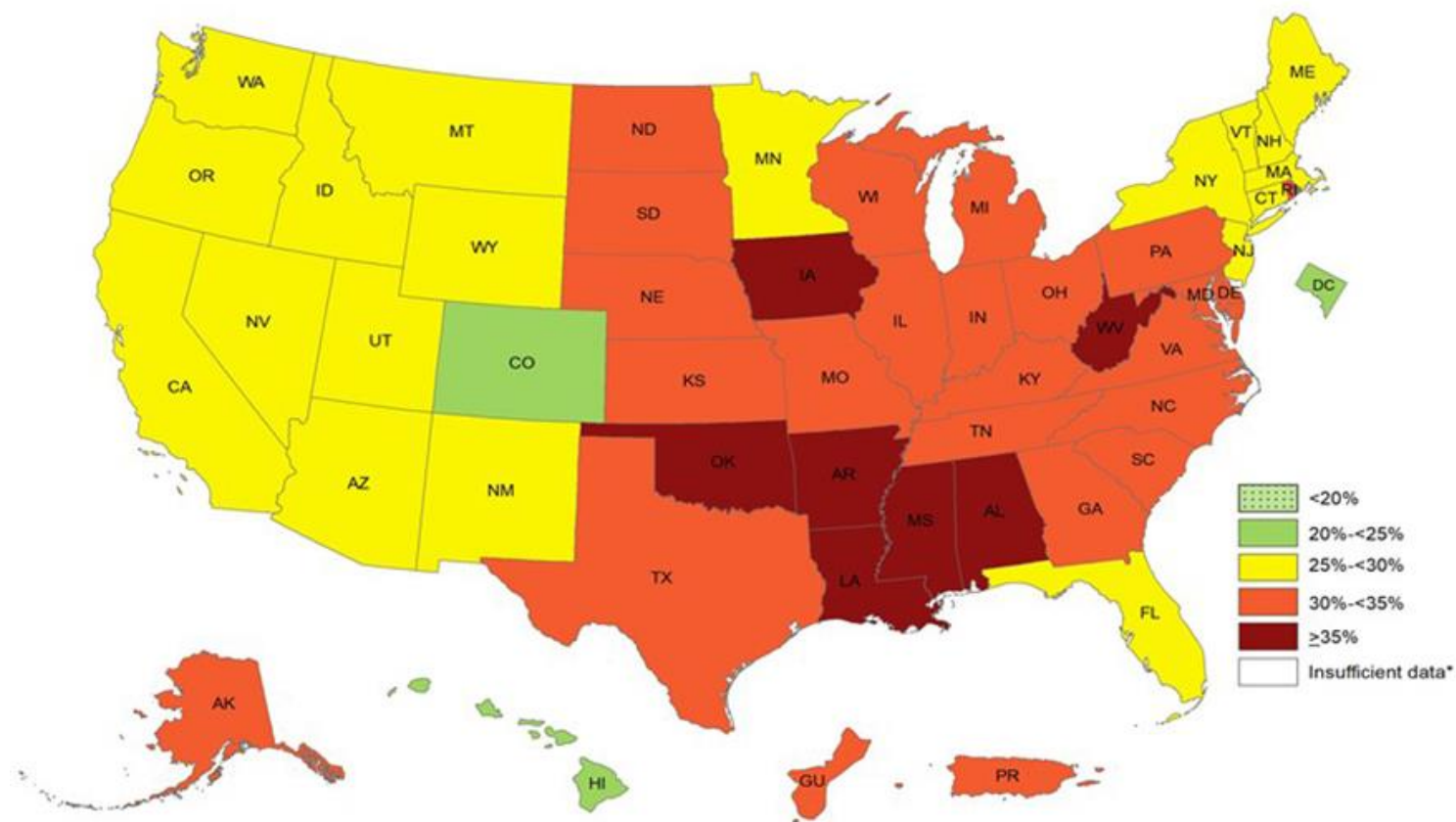
Prevalence[†] of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2016

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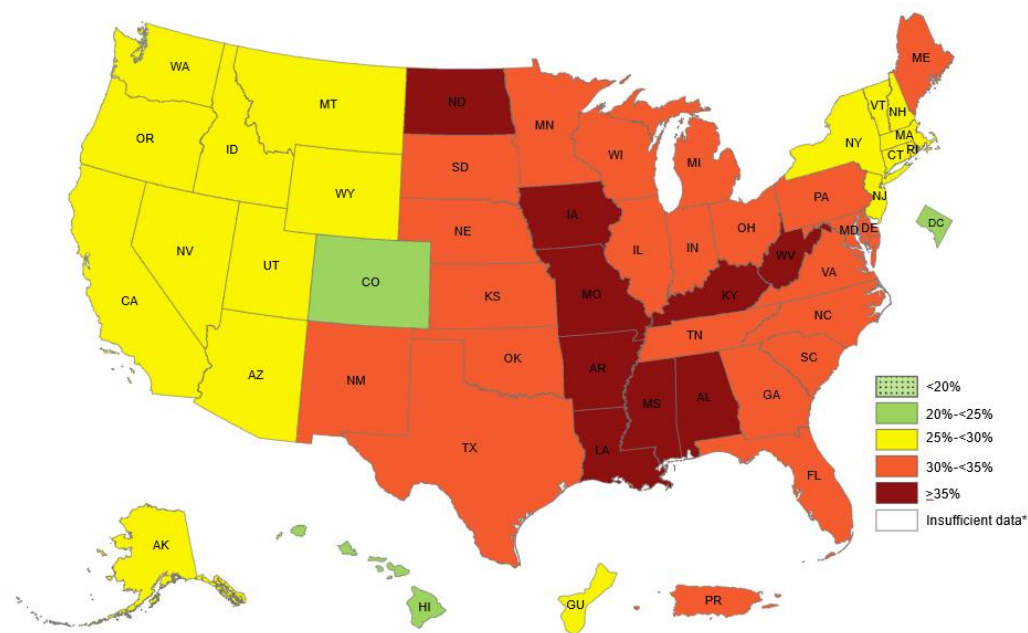
Prevalence[†] of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2017

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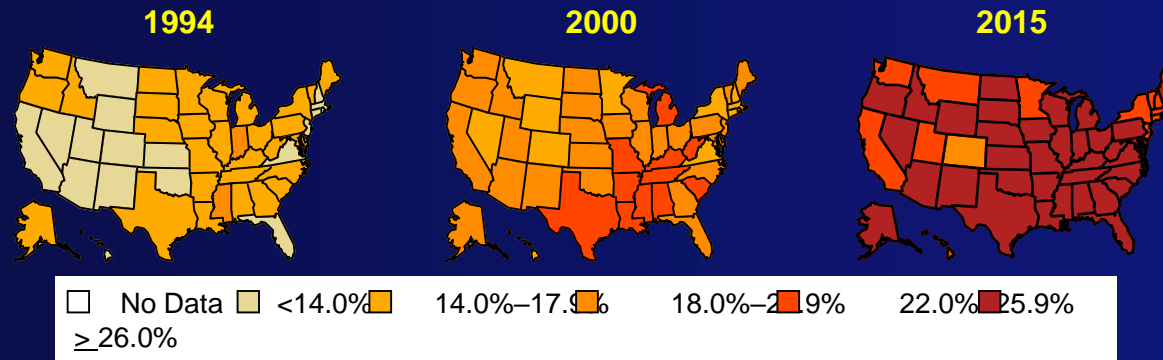
Prevalence[†] of Self-Reported Obesity Among U.S. Adults by State and Territory, BRFSS, 2018

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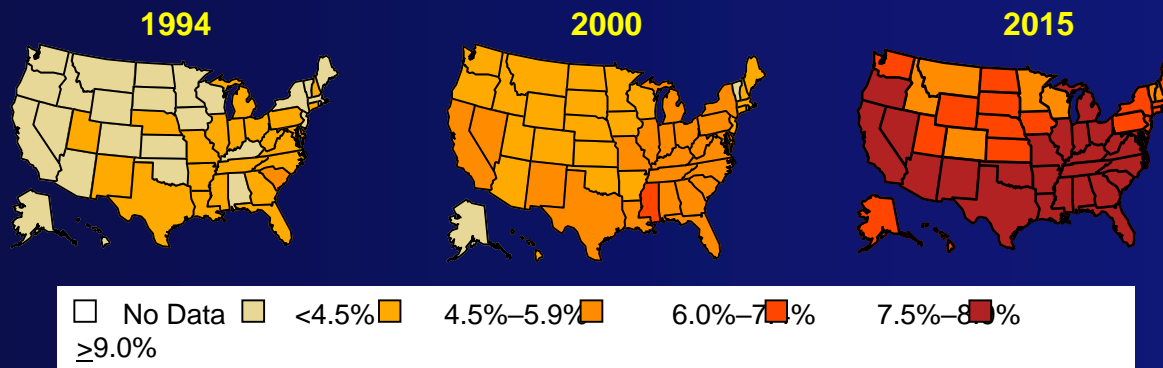


Age-adjusted Prevalence of Obesity and Diagnosed Diabetes Among US Adults

Obesity (BMI ≥ 30 kg/m²)



Diabetes



CDC's Division of Diabetes Translation. United States Surveillance System available at <http://www.cdc.gov/diabetes/data>

What is Changing?



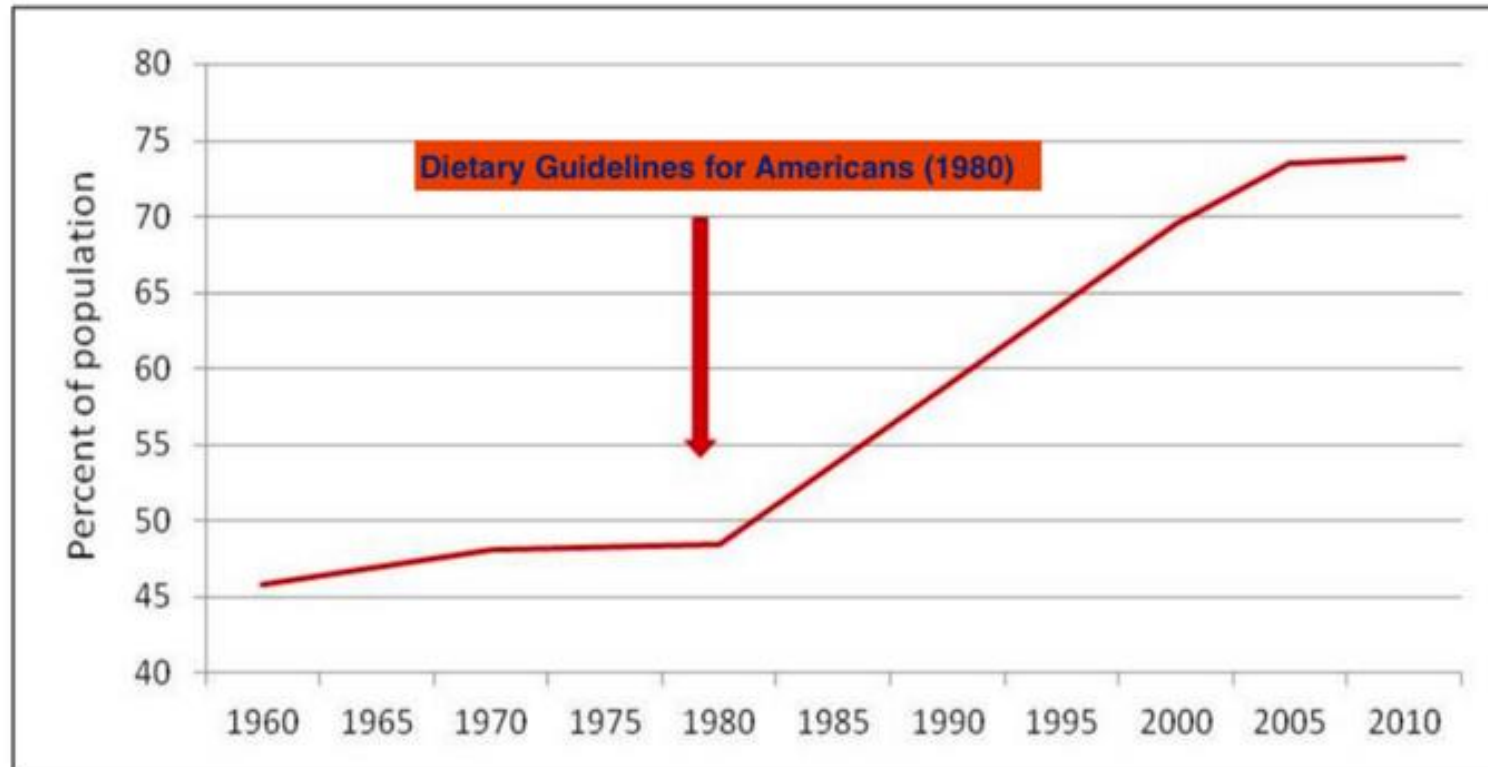
What is Changing?



Standard American Diet (SAD)

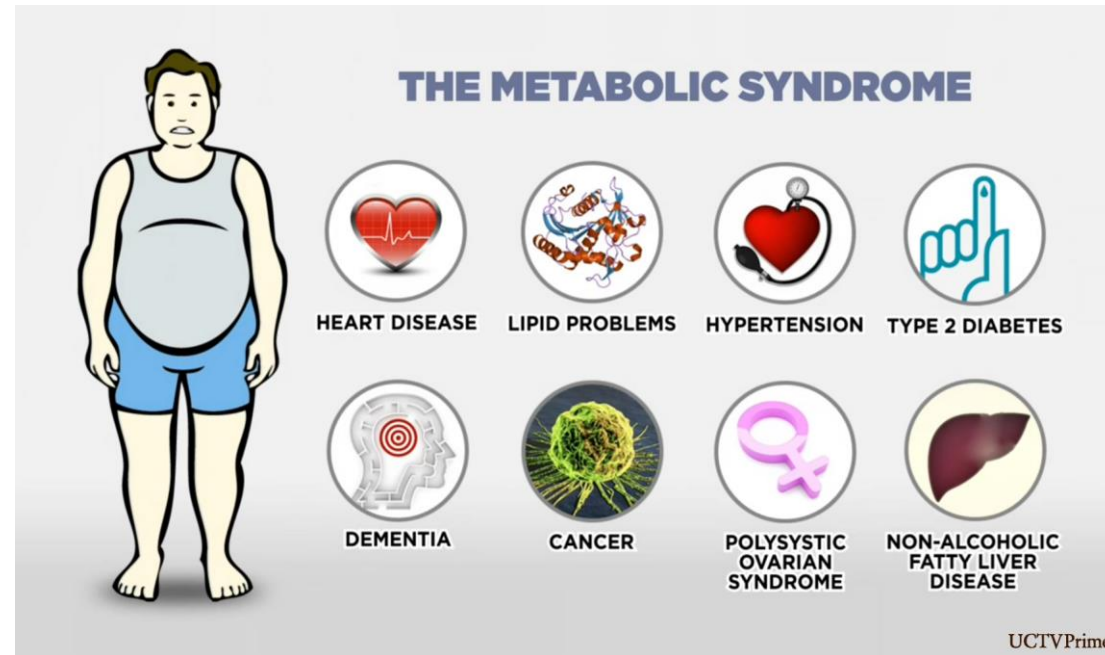


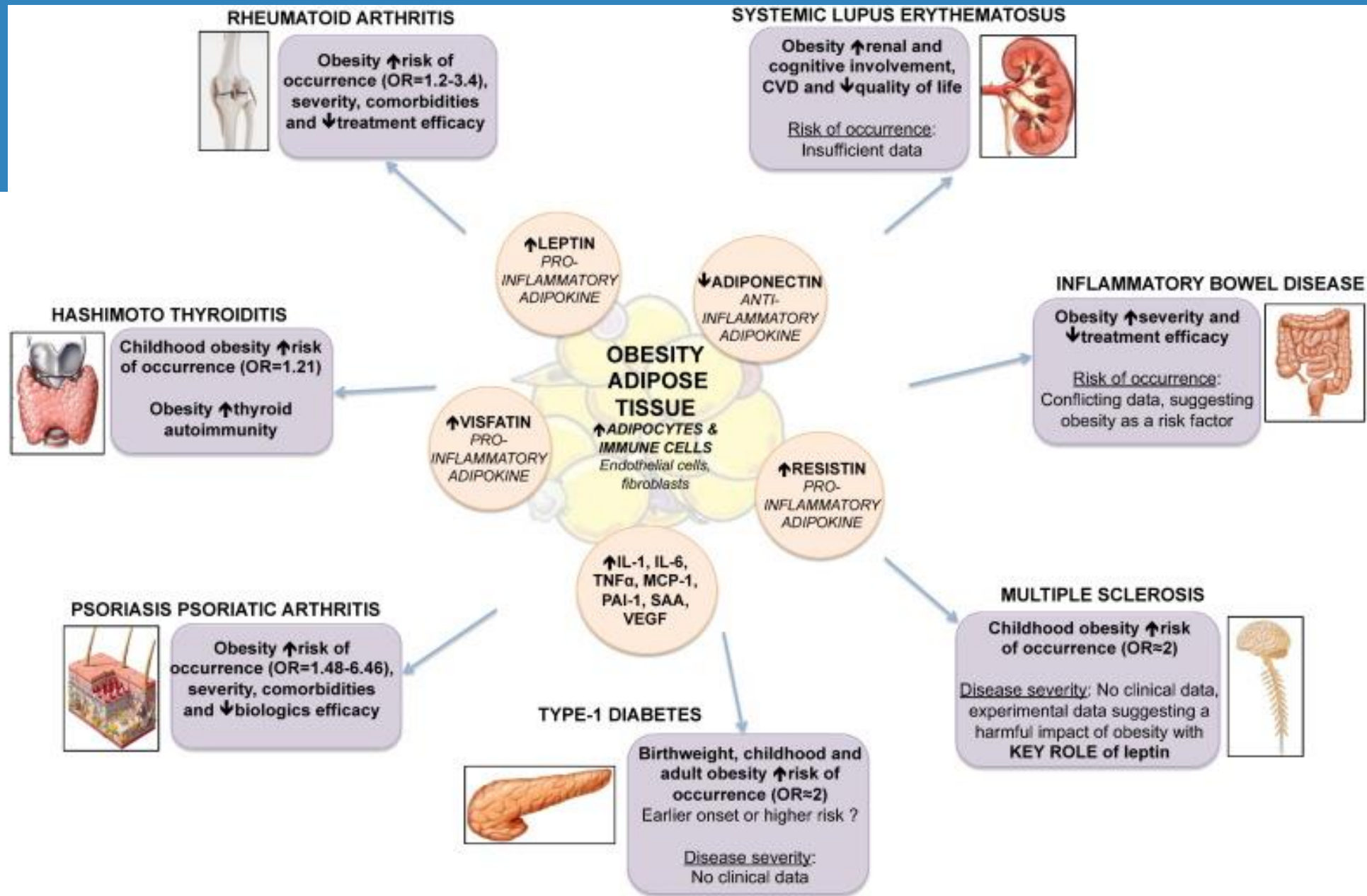
Rate of Overweight/Obesity in US



Source: CDC data

Metabolic Syndrome



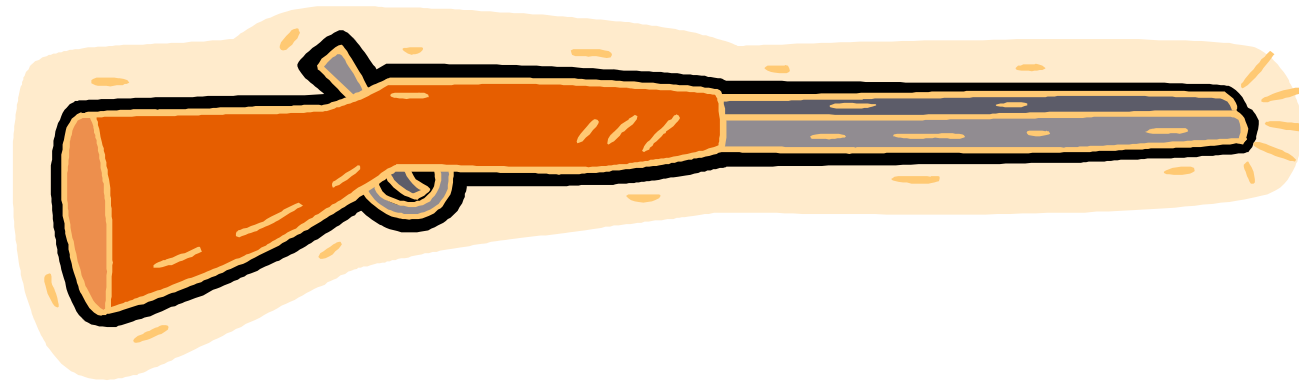


Mathilde Versini, Pierre-Yves Jeandel, Eric Rosenthal, Yehuda Shoenfeld

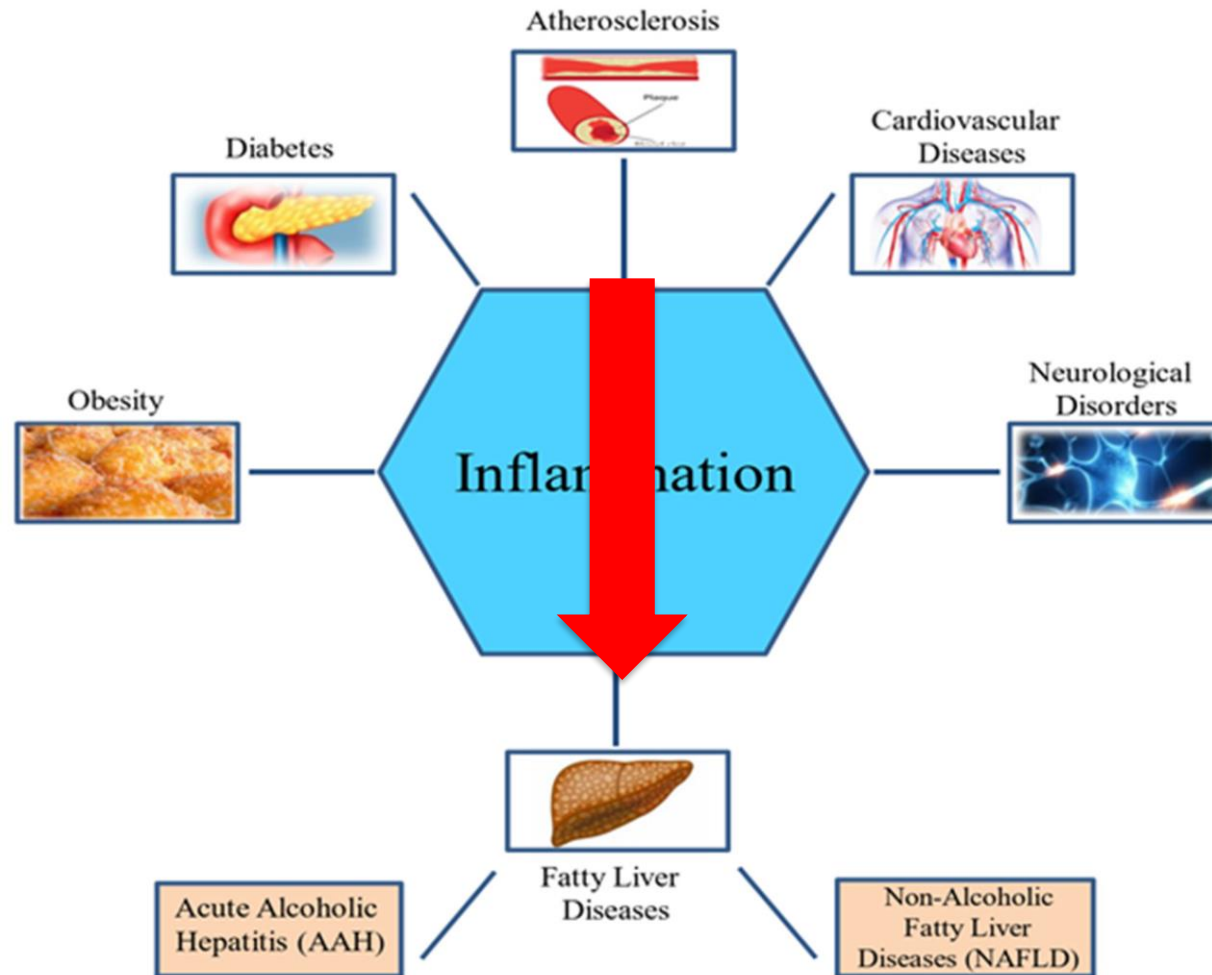
Obesity in autoimmune diseases: Not a passive bystander
 Autoimmunity Reviews, Volume 13, Issue 9, 2014, 981–1000

Genes vs. Environment

- “Genetics loads the gun—
the environment pulls the trigger.”



Inflammation



Effects of Weight Loss

Table 3. Comorbid Conditions in Obesity and Evidence for Amelioration With Weight Reduction

Comorbidity	Improvement After Weight Loss	First Author, Year (Ref)
T2DM	Yes	Cohen, 2012 (132); Mingrone, 2012 (133) ^a ;
Hypertension	Yes	Schauer, 2012 (134); Buchwald, 2009 (135)
Dyslipidemia and metabolic syndrome	Yes	Ilane-Parikka, 2008 (136); Phelan, 2007 (137); Zanella, 2006 (138)
Cardiovascular disease	Yes	Ilane-Parikka, 2008 (136); Phelan, 2007 (137); Zanella, 2006 (138)
NAFLD	Variable outcomes	Wannamethee, 2005 (139)
Osteoarthritis	Yes	Andersen, 1991 (140); Huang, 2005 (141); Palmer, 1990 (142); Ueno, 1997 (143)
Cancer	Yes	Christensen, 2007 (144); Fransen, 2004 (145); Huang, 2000 (146); Messier, 2004 (147); van Gool, 2005 (148)
Major depression	Insufficient evidence	Adams, 2009 (149); Sjöström, 2009 (150)
Sleep apnea	Yes	Kuna, 2013 (151)

Weight Loss and Enhancing Immune System



Move More



Love More

Eat well



Stress Less



Eating Well: Nourishing Your Body

Step 1: Increase Vegetable Intake



Step 2: Stop all sugar sweetened beverages



Step 3: Change the way you think about red meat.



Step 4: Spice up your Life



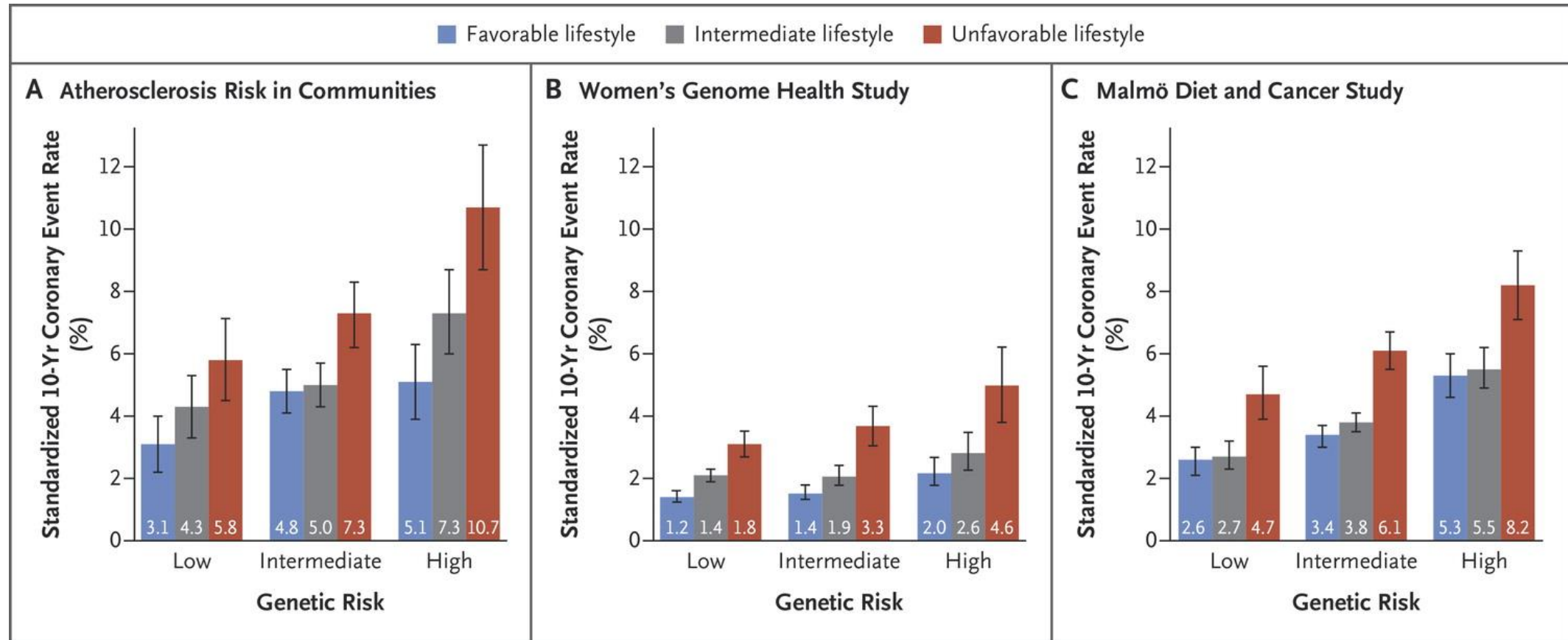
Step 5: Eat Whole Grains



Step 6: Healthy Fats are ok



10-Year Coronary Event Rates, According to Lifestyle and Genetic Risk in the Prospective Cohorts.



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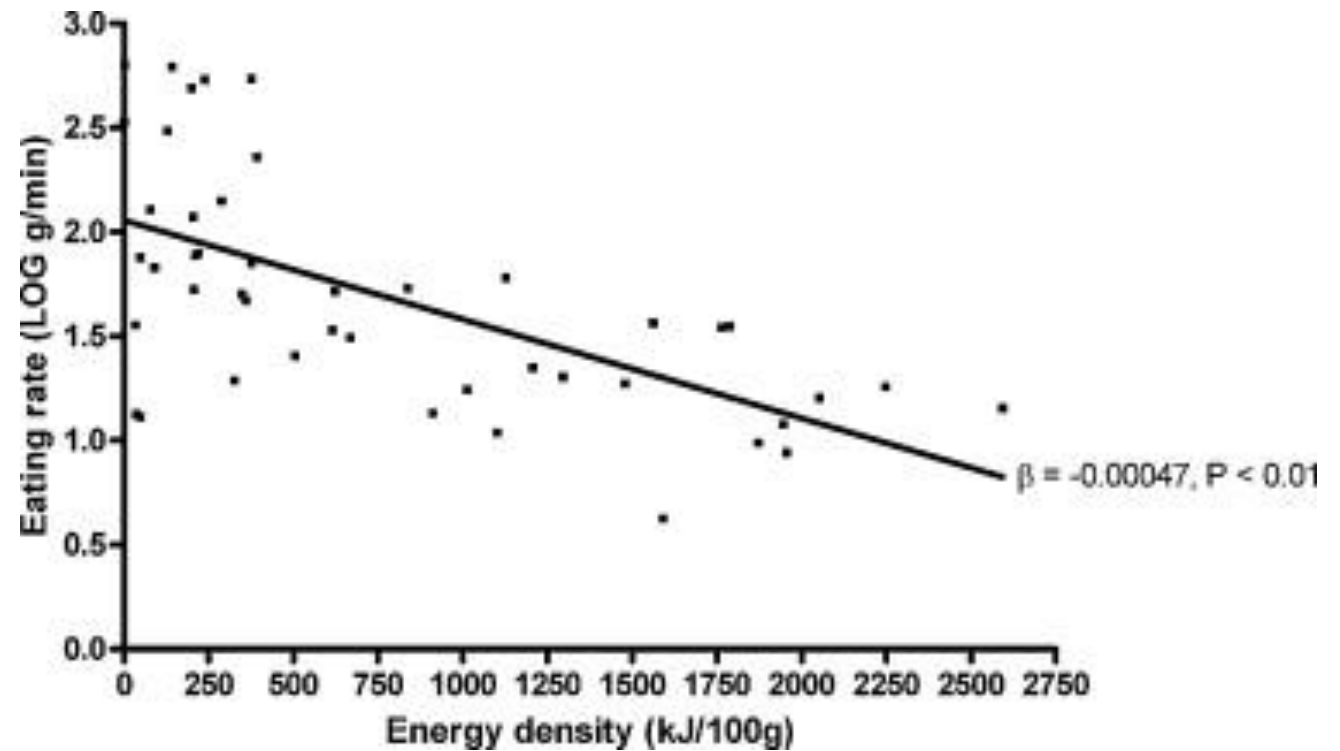
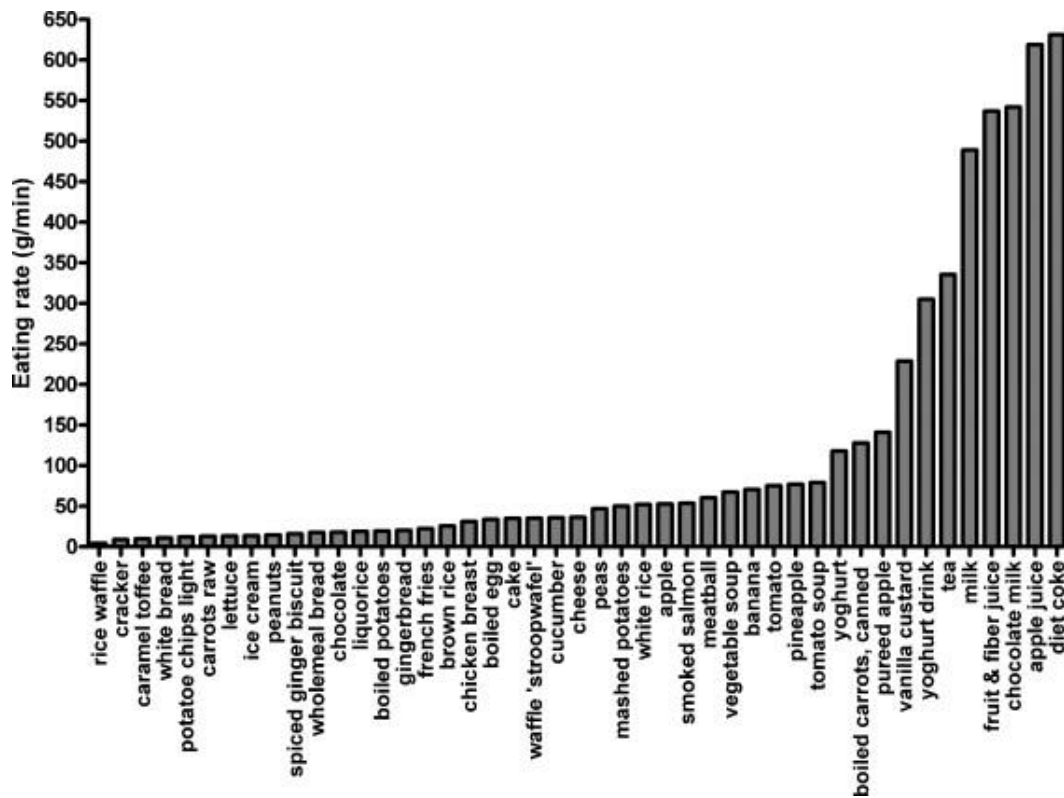
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Eating Well: Nourishing Your Body

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Step 6: Healthy Fats are ok



Step 3: Change the way you think about meat.

- Omega-6s are pro-inflammatory, while omega-3s are anti-inflammatory
- Choose lean cuts and grass fed if possible.



Eating Well: Nourishing Your Body

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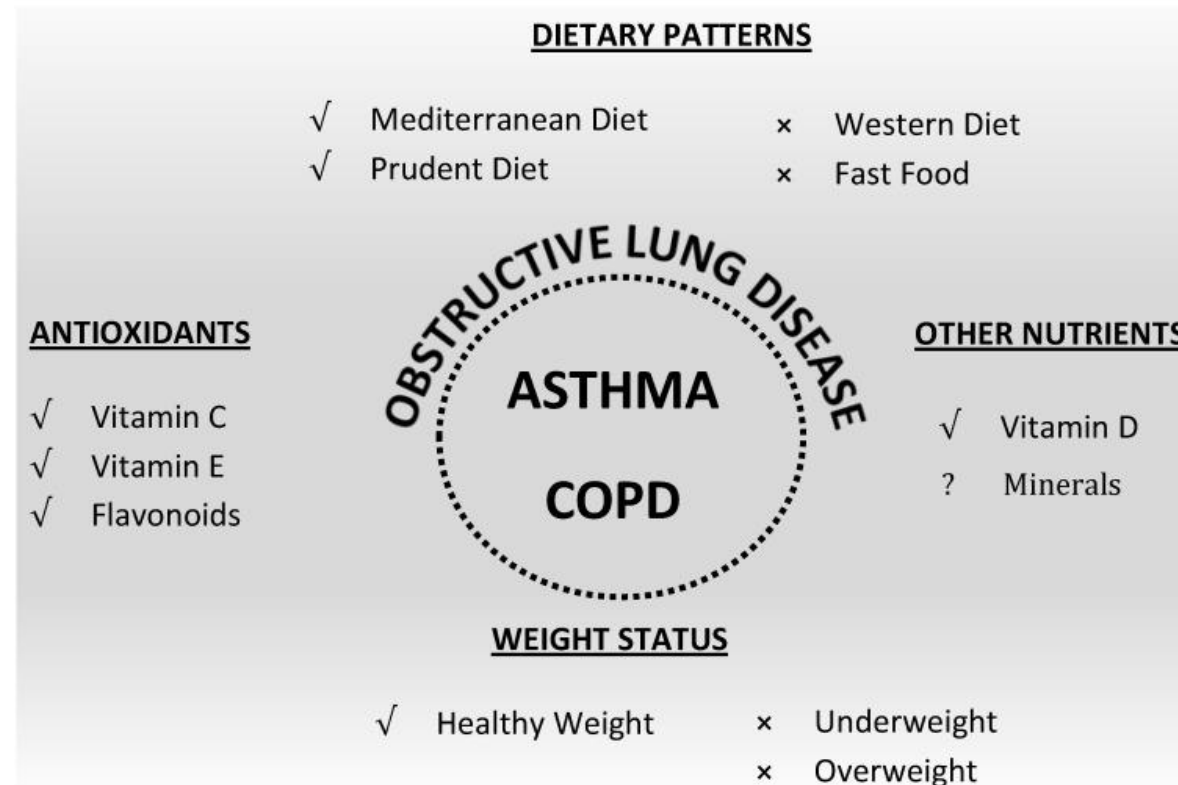
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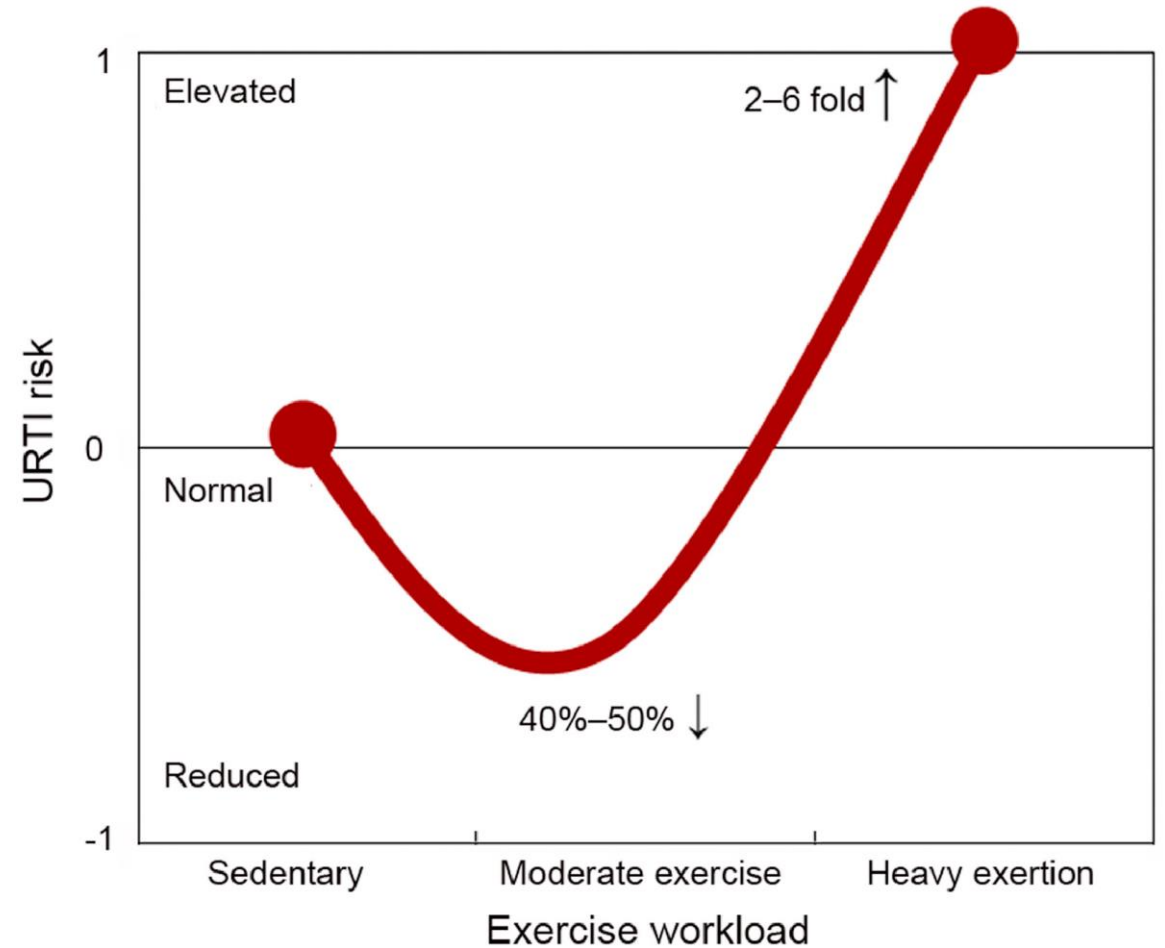
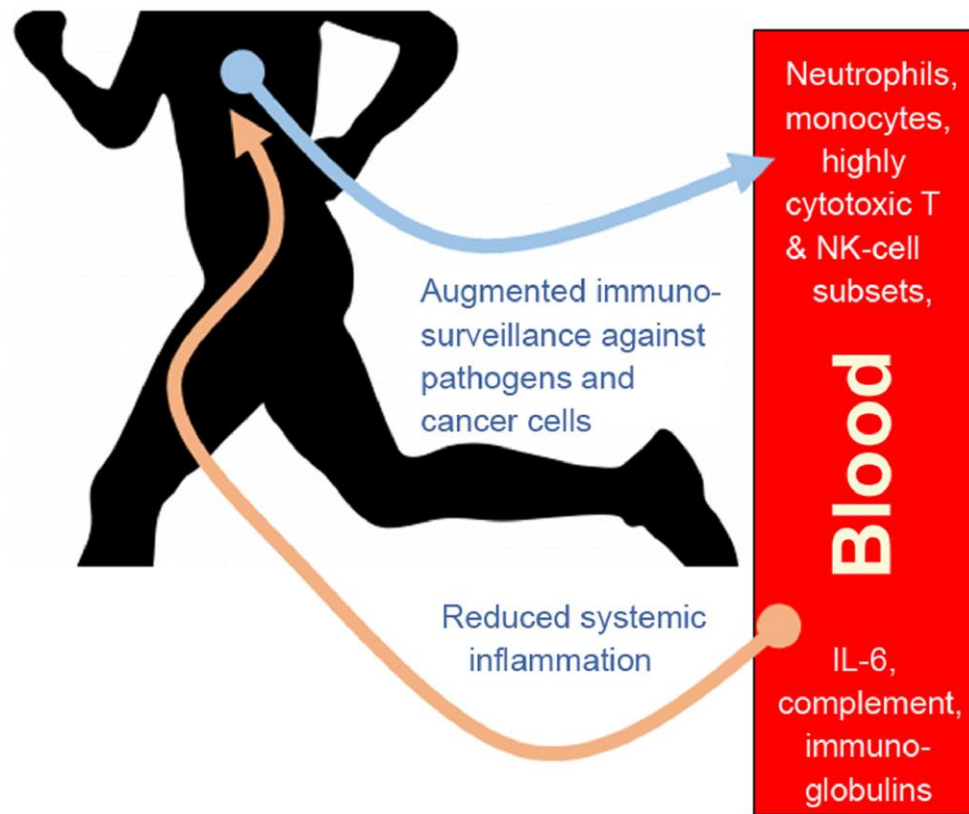
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Dietary Patterns



Move More!



Weight Loss and Enhancing Immune System



Move More



Love More

Eat well

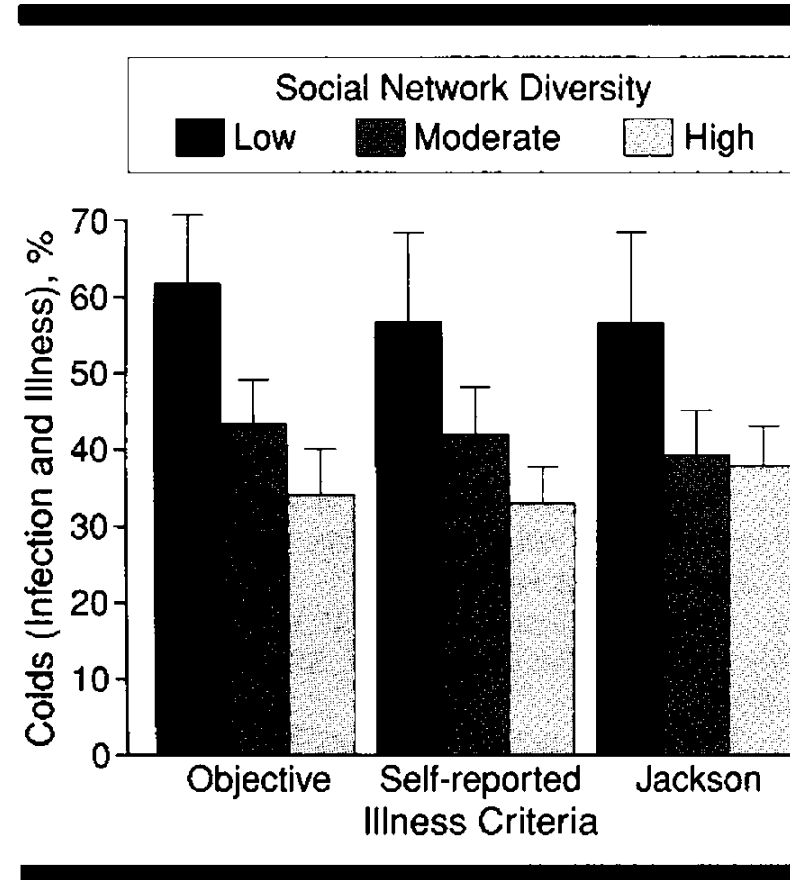


Stress Less



Social Ties and Susceptibility to the Common Cold

- Study included 276 healthy adults from 18 to 55 years old
- Subjects were given nasal drops containing 1 of 2 rhinoviruses and monitored for the development of a common cold
- The incidence of colds in the study was 35 percent among the people with six or more types of relationships



Stress and Susceptibility to the Common Cold

- After completing an intensive stress interview, 276 healthy adults were exposed to a virus that causes the common cold and monitored in quarantine for five days for signs of infection and illness.

Table 1. Simple effect associations of stress status with lymphocyte subsets

	% lymphocytes		% neutrophils		Neutrophils/ lymphocytes	
	β	SE β	β	SE β	β	SE β
No stress	-0.27**	0.09	0.24**	0.09	0.26**	0.09
Stress	-0.01	0.09	-0.02	0.09	-0.00	0.09

Analyses control for age, sex, race, body mass index, education, prechallenge viral-specific antibody titers, season, and virus type. ** $P < 0.01$.

Table 2. Simple effect associations of cold status with lymphocyte subsets

	% lymphocytes		% neutrophils		Neutrophils/ lymphocytes	
	β	SE β	β	SE β	β	SE β
No cold	-0.27**	0.08	0.21*	0.08	0.26**	0.08
Cold	0.01	0.09	-0.01	0.09	-0.01	0.09

Analyses control for age, sex, race, body mass index, education, prechallenge viral-specific antibody titers, season, and virus type. * $P < 0.05$, ** $P < 0.01$.

Weight Loss and Enhancing Immune System



Move More



Love More

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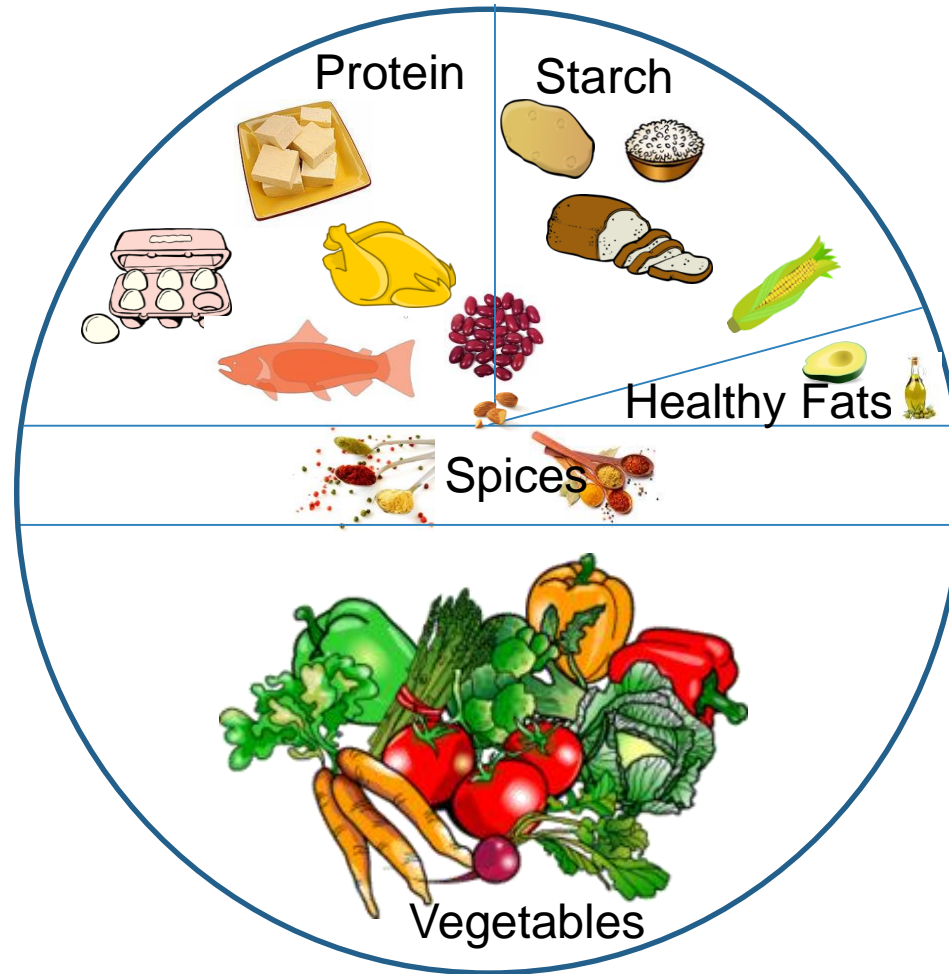


Stress Less



Focusing on your Health All “U”

A Diet is Temporary. A Lifestyle is Forever.



Center for Human Nutrition

- Clinical Nutrition Clinic
- UCLA Medical Weight Management Program
- COMET Program

Tel: (310) 825-7921 – Clinical Nutrition

Tel: (310) 825-8173 – UMWMP

Tel: (310) 825-7163 – COMET

Website: <https://www.uclahealth.org/clinicalnutrition/>