



# EMPHASIZING NUTRITION FOR LIVER HEALTH

ANNE FLEETWOOD, MS, RDN, CDCES

ANTHC DIABETES PROGRAM



# PRE-TEST

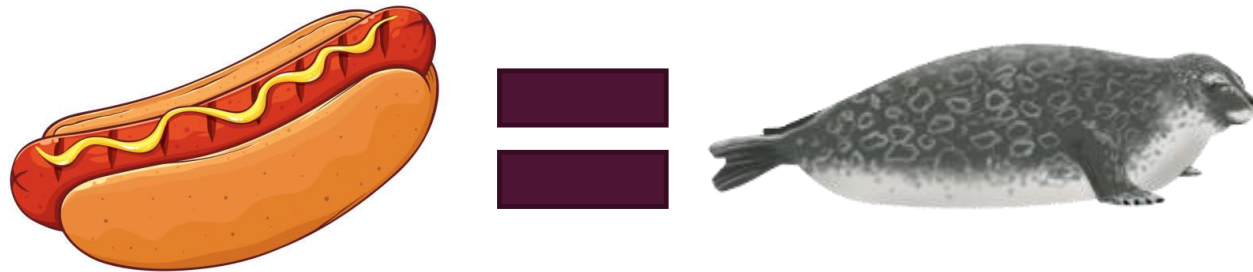
- What does alcohol do to blood sugar?
  - a) Increases it
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  - c) Makes it stay about the same
  - d) Both A & B



# PRE-TEST

- In the way of iron content... how many hot dogs does it take to equal one serving of seal meat?

- a) 8
- b) 15
- c) 27
- d) 32

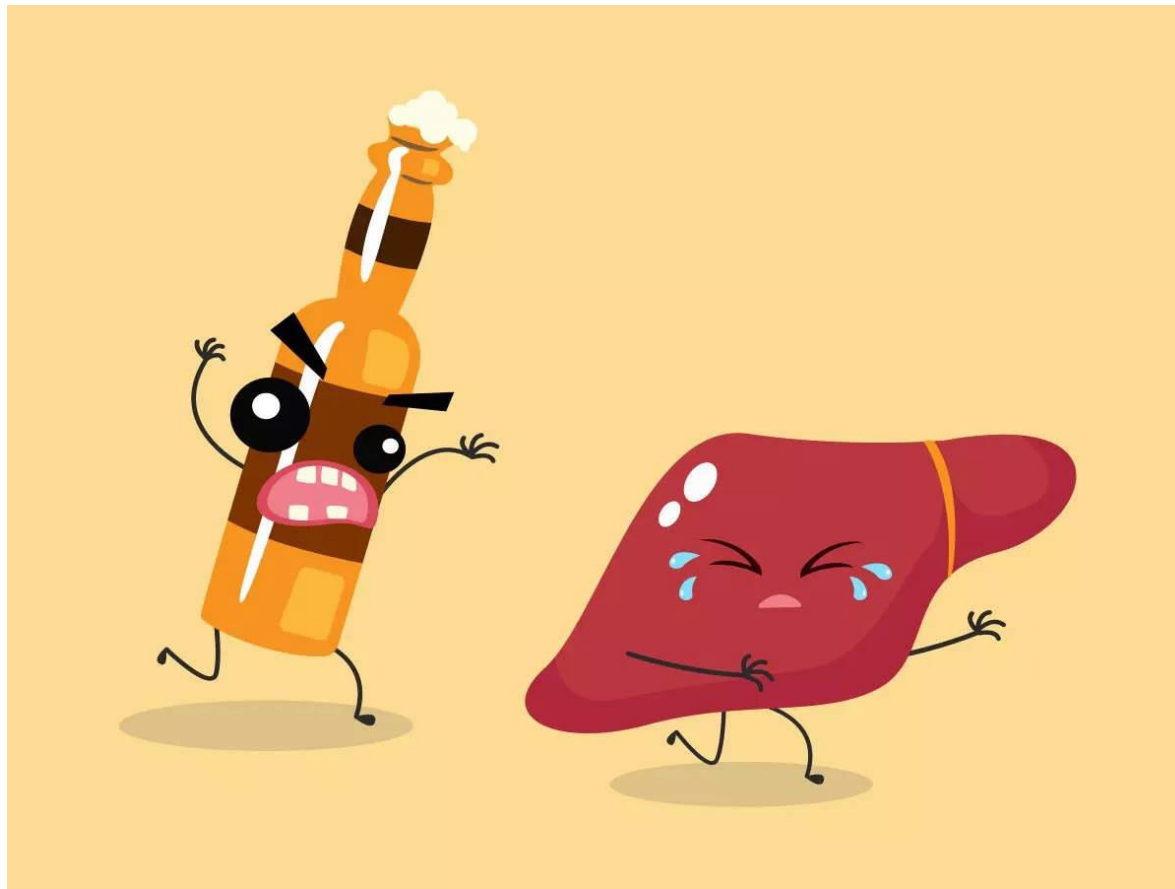


# THE HEALTHY LIVER

- Digests food
- Processes toxins
- Storage of nutrients

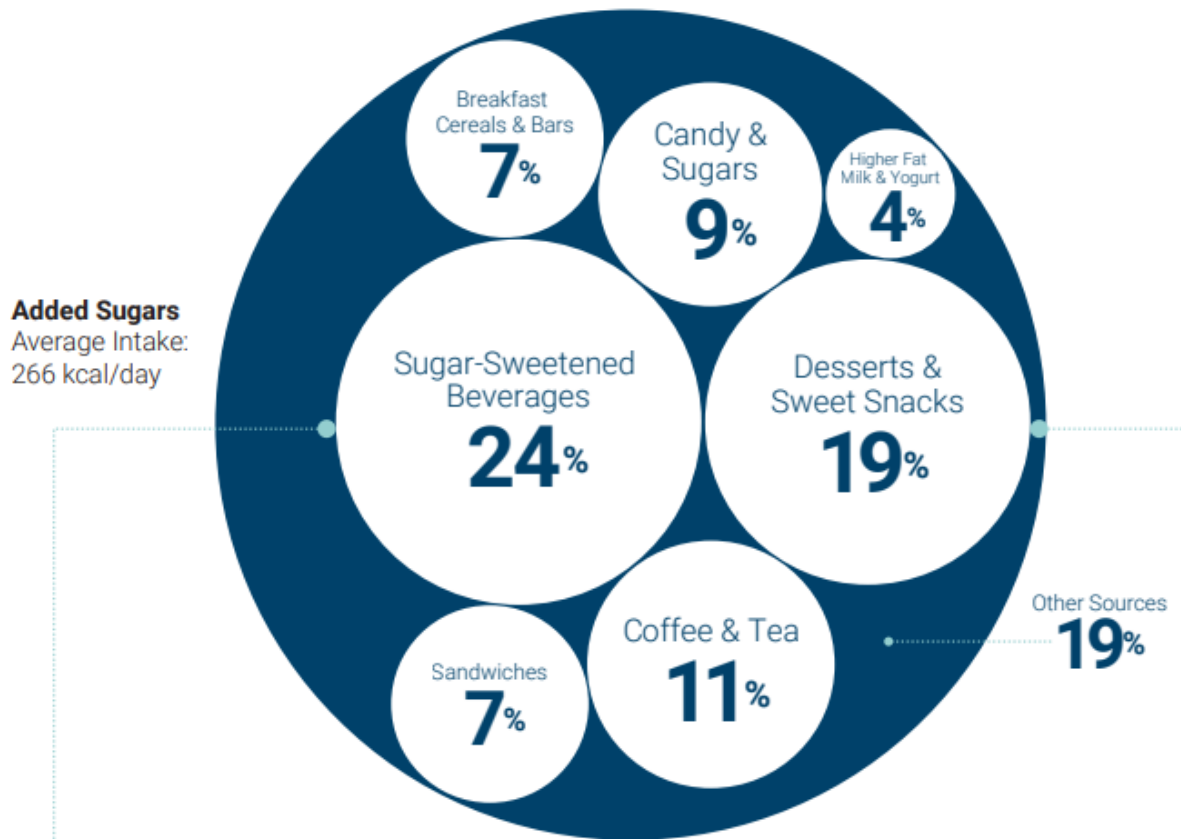


# THINGS TO AVOID... ALCOHOL



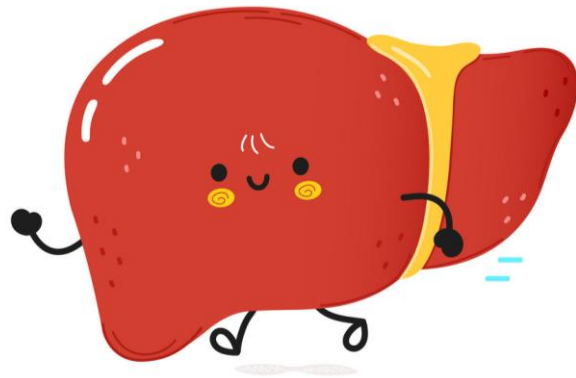
# THINGS TO AVOID... SPECIFIC FOODS?

## Top Sources and Average Intakes of Added Sugars: U.S. Population Ages 1 and Older



## THINGS TO AVOID... METABOLIC SYNDROME

- Avoid high cholesterol and triglycerides
- Avoid obesity, particularly abdominal obesity
- Avoid type II diabetes
- ← Reduce saturated fats, trans fats, added sugars
- ← Increase movement
- ← Reduce added sugars, choose whole foods, eat a wide variety of non starchy vegetables



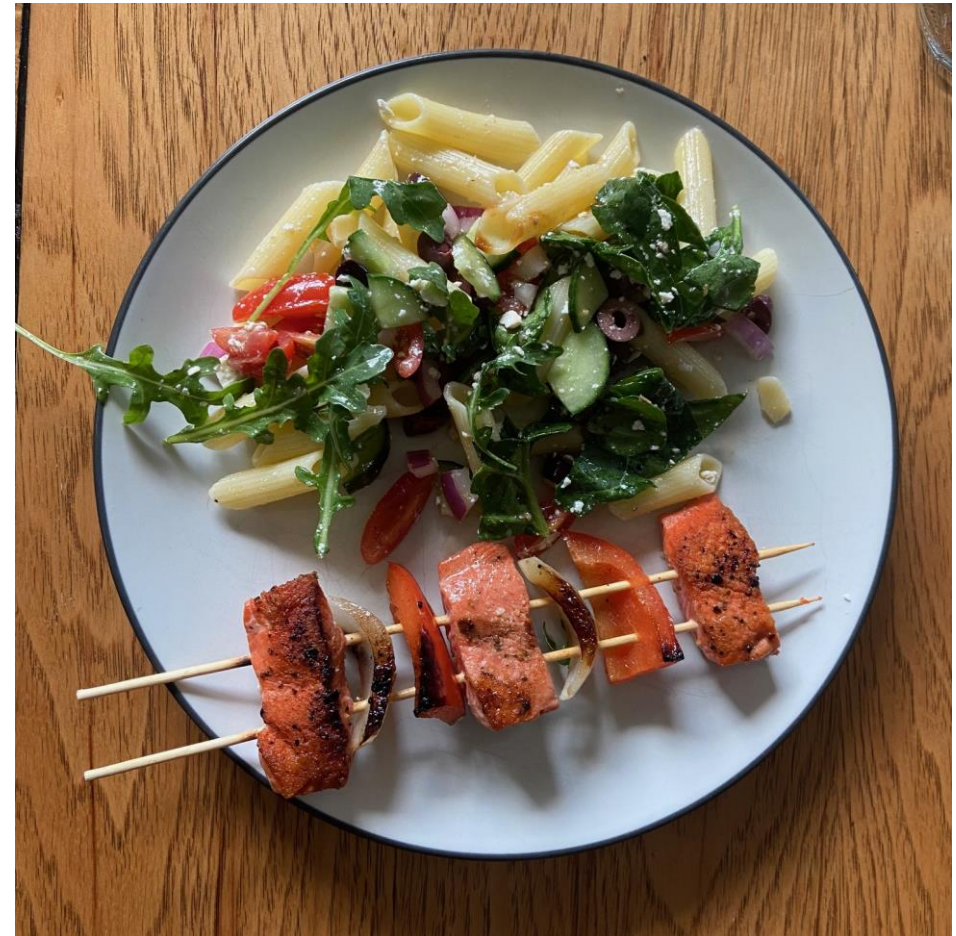
# THINGS TO INCLUDE!...



# THINGS TO INCLUDE!... NON STARCHY VEGETABLES



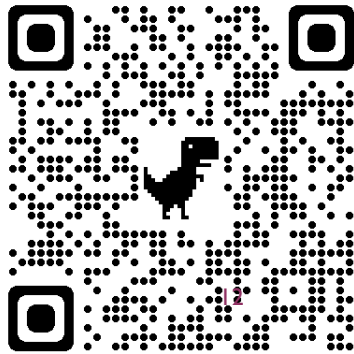
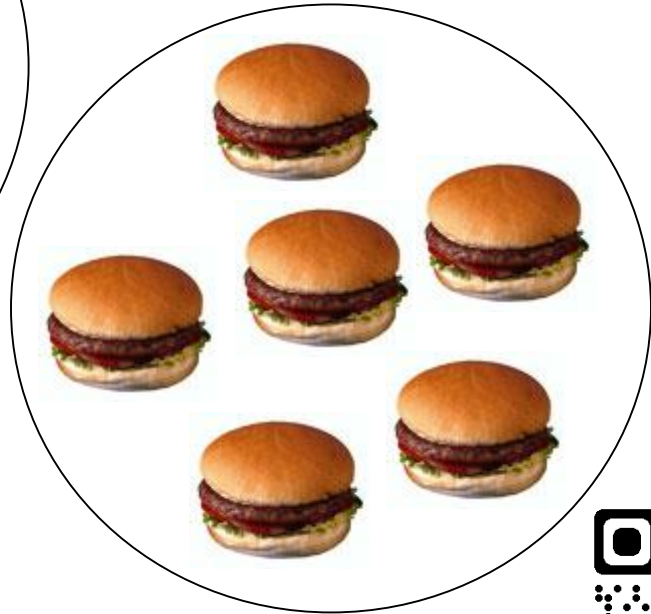
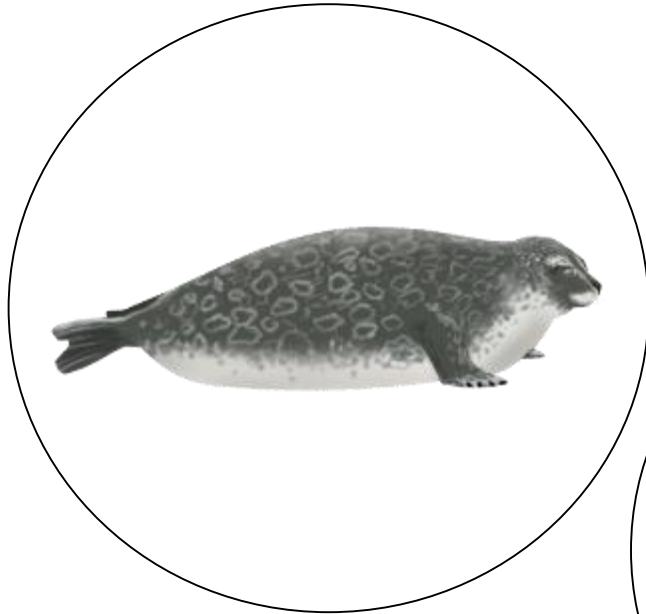
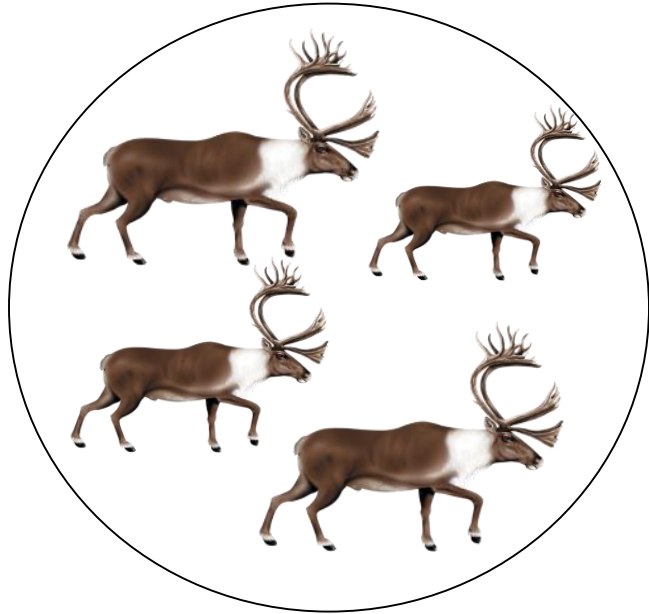
# THINGS TO INCLUDE!... UNSATURATED FATS OVER SATURATED

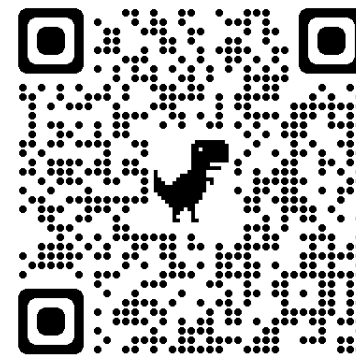


# THINGS TO INCLUDE!...WHOLE FOODS



# IRON....





<https://fdc.nal.usda.gov/fdc-app.html#/>

POSSIBLE ADDITIONS...

# POSSIBLE ADDITIONS... PRE & PROBIOTICS

Int J Mol  
Sci. 2019  
Jan; 20(2):  
395.

Published  
online  
2019 Jan  
17. doi: [10.3390/ijms20020395](https://doi.org/10.3390/ijms20020395)

Table 2

Therapeutic options for gut-microbiota alteration in liver diseases.

Disease	Therapeutic Option	References
NAFLD/NASH	-“VSL #3” ( <i>Streptococcus thermophilus</i> , <i>Bifidobacterium breve</i> , <i>B. longum</i> , <i>B. infantis</i> , <i>Lactobacillus acidophilus</i> , <i>L. plantarum</i> , <i>L. paracasei</i> , <i>L. bulgaricus</i> ) reduces liver injury	[61,62]
Cirrhosis	-Diet rich in fermented milk, vegetables, cereals, coffee, and tea is associated with a higher microbial diversity and lower risk for cirrhosis progression	[63]
HCC	-Probiotics can contribute to the inhibition of aflatoxin B-induced hepatocarcinogenesis, restore intestinal dysbiosis, reduce LPS levels and decrease tumor size -Probiotic fermented milk and chlorophyllin slow down tumor growth and volume for 40%	[58,99] [64]
HE	- <i>Lactobacillus</i> , <i>Bifidobacterium</i> , non-pathogenetic strains of <i>Escherichia coli</i> , <i>Clostridium butyricum</i> , <i>Streptococcus salivarius</i> , <i>Saccharomyces boulardii</i> and VSL#3 improve HE	[65,66,67,68,69]

Abbreviations: NAFLD, non-alcoholic fatty liver disease, HCC, hepatocellular carcinoma, HE, hepatic encephalopathy, and NASH, non-alcoholic steatohepatitis.

## POSSIBLE ADDITIONS... COFFEE

**J Clin Exp Hepatol. 2016 Mar; 6(1): 40–46.**

**Published online 2016 Feb**

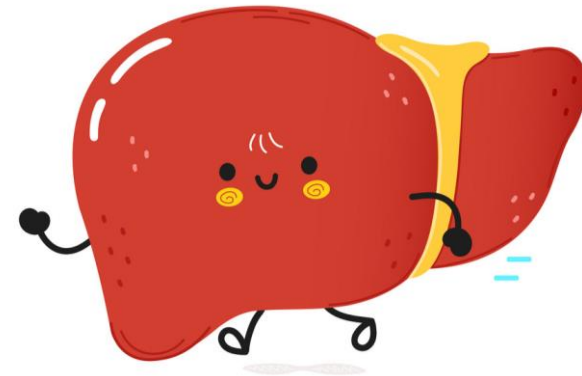
**27. doi: [10.1016/j.jceh.2016.02.003](https://doi.org/10.1016/j.jceh.2016.02.003)**

AST,ALT, GGTP	Lower in coffee drinkers
NAFLD	Lower fatty liver severity, lower risk of NAFLD in coffee drinkers
Metabolic syndrome	Lower incidence in coffee drinkers
Cirrhosis/Fibrosis	Coffee consumers were less likely to develop liver fibrosis, as well as cirrhosis, compared to those who do not consume coffee
HCC	Reduced risk of HCC with 2-3 cups of coffee a day





# SUMMARY



# POST-TEST

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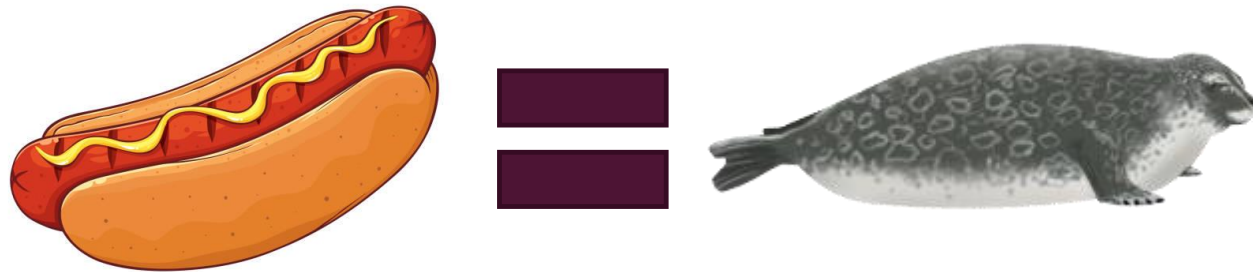
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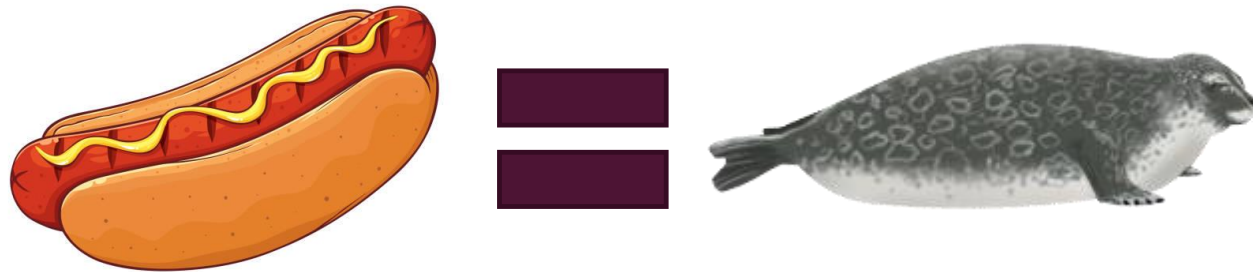
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