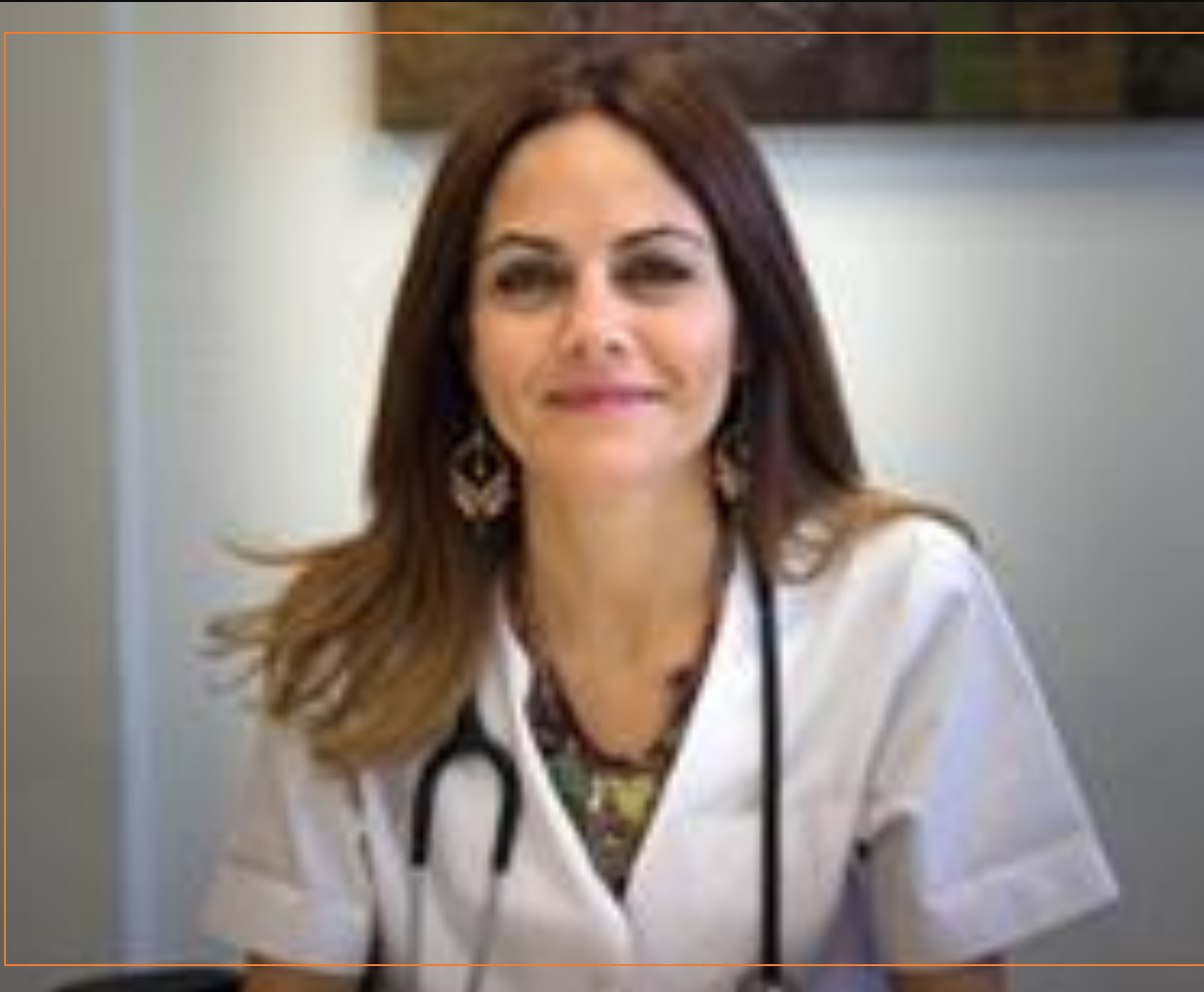


FASTING FOR HEALING



Dra Camino Díaz

www.dracaminodiaz.com
consultas@dracaminodiaz.com



Dra Camino Díaz

M.D. – Universidad Complutense Madrid (Spain).
General Practitioner and Specialist in Family Medicine and
Integrative Medicine.

Expert in Therapeutic Fasting, Intestinal Microbiota,
Orthomolecular Supplementation, Neural Therapy and
Intradermal Acupuncture.

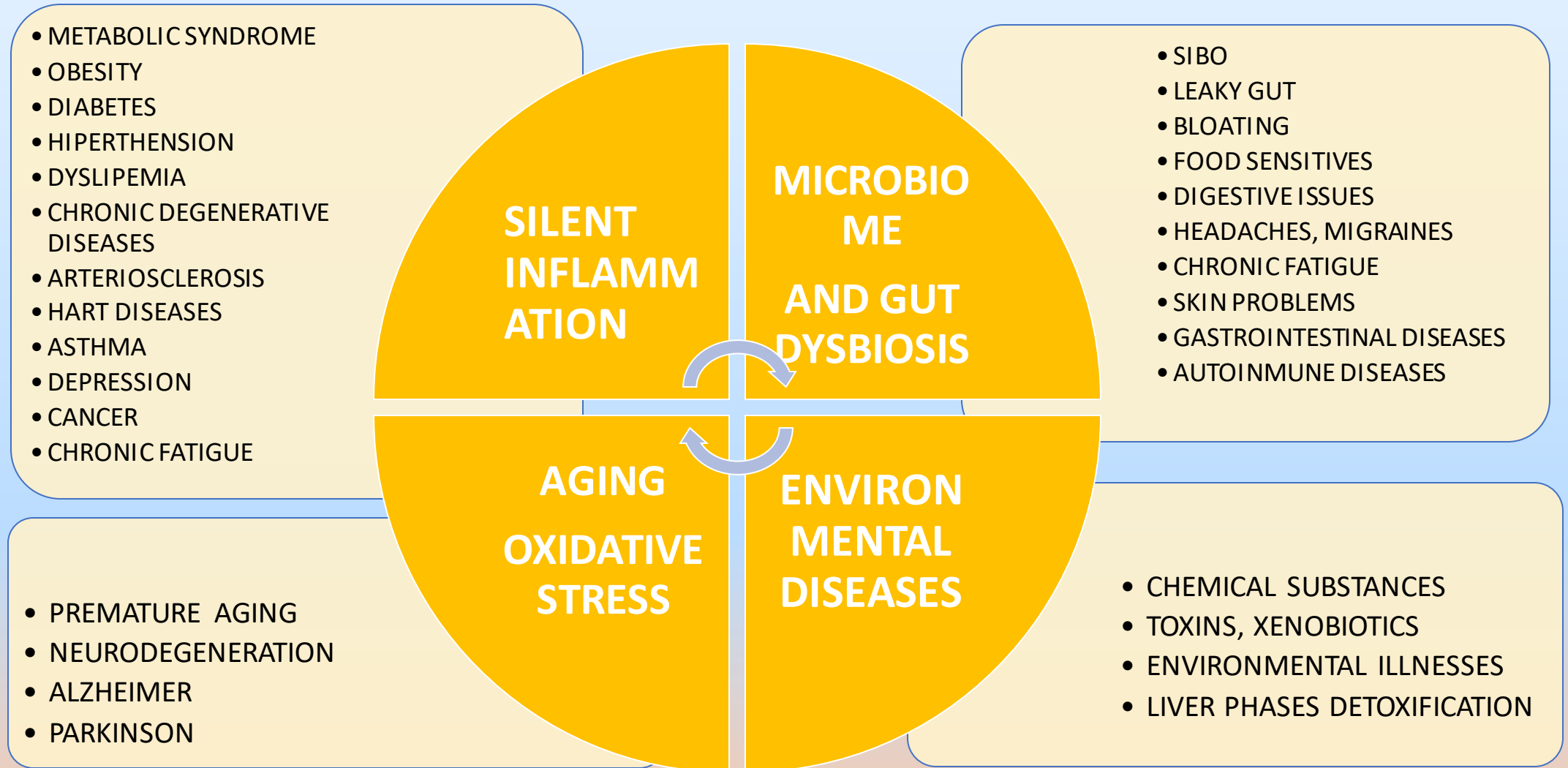
Double Master in Homeopathy

Master's Degree in Evidence-Based Nutrition and
Supplementation.

Master's Degree in Environmental Medicine.

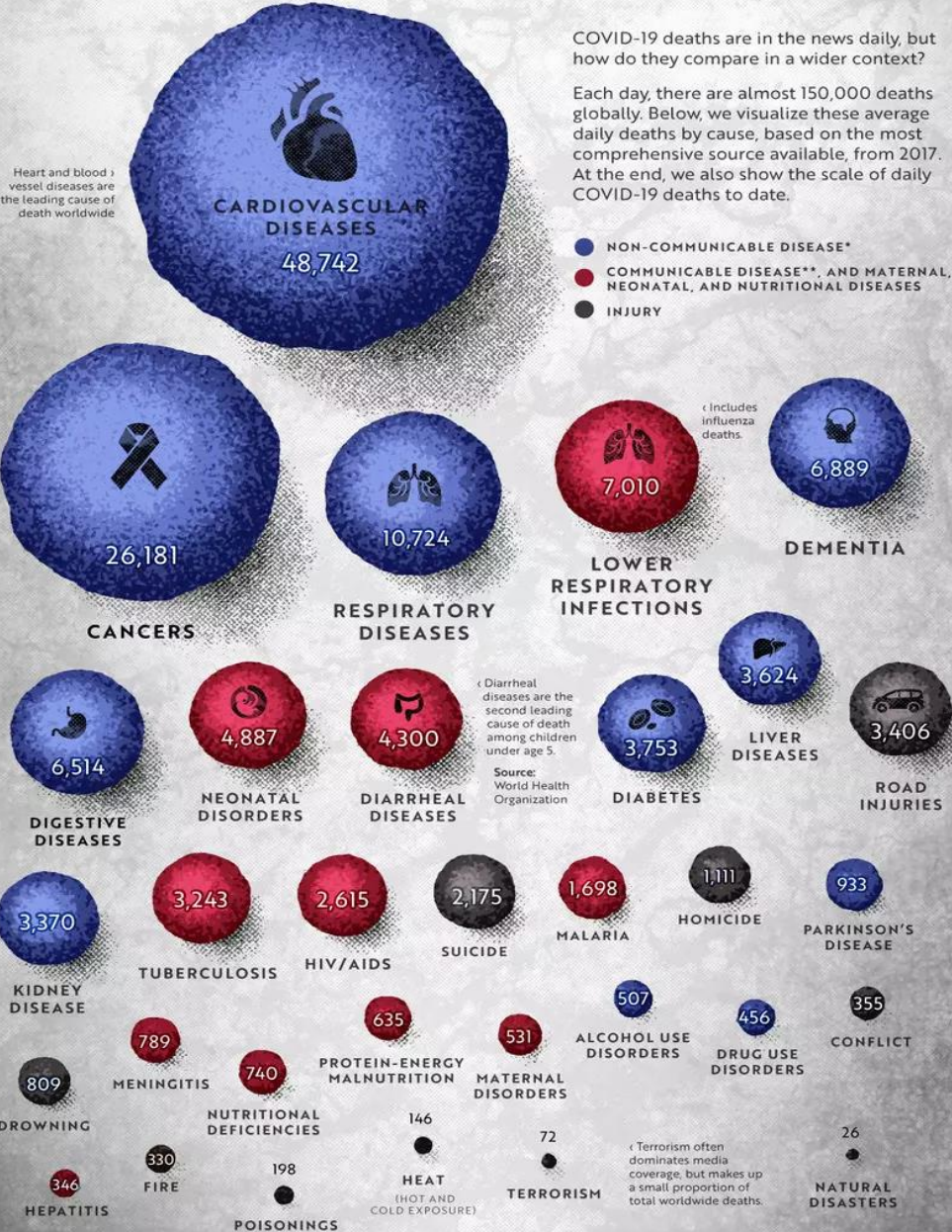
Master's Degree in Advanced Integrative Medicine.

HEALTH CONDITIONERS:





HOW MANY PEOPLE **DIE** EACH DAY?



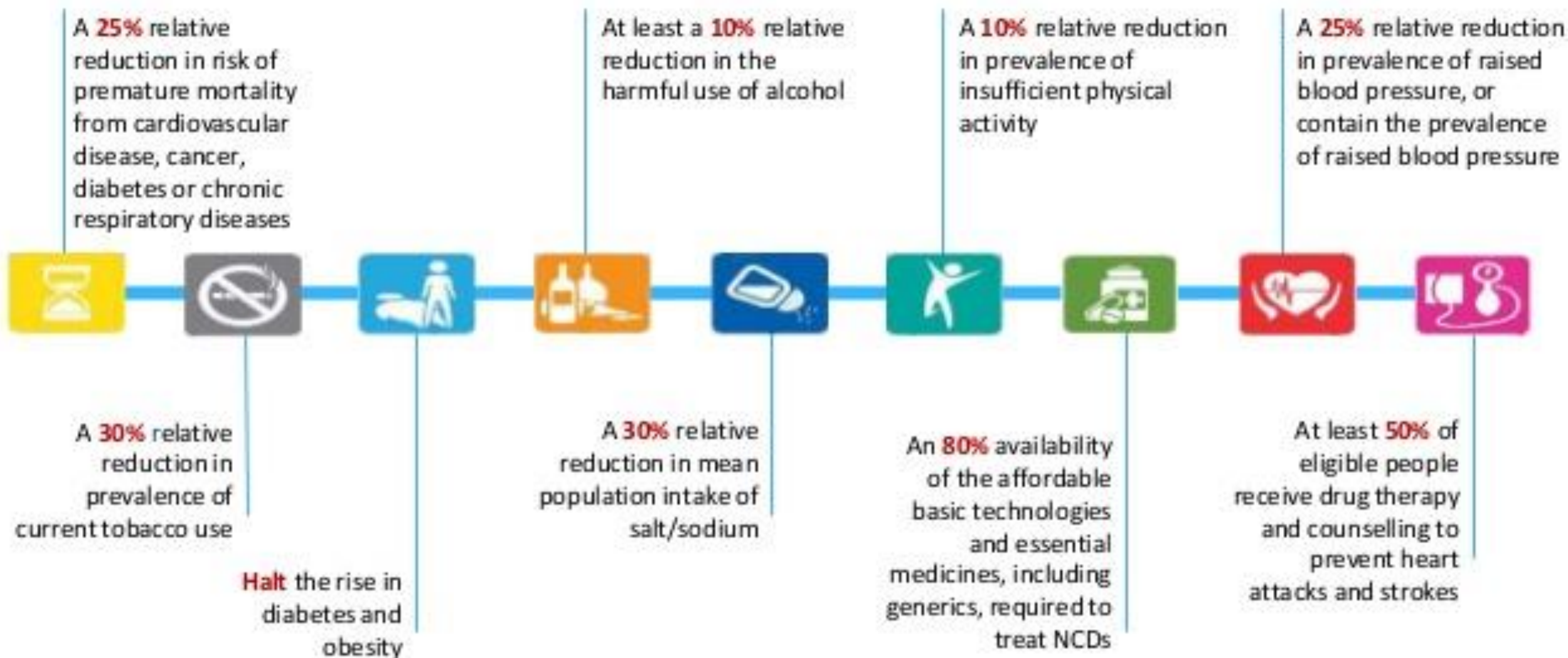
Rank	Cause	Daily Deaths
#1	Cardiovascular diseases	48,742
#2	Cancers	26,181
#3	Respiratory diseases	10,724
#4	Lower respiratory infections	7,010
#5	Dementia	6,889
#6	Digestive diseases	6,514
#7	Neonatal disorders	4,887
#8	Diarrheal diseases	4,300
#9	Diabetes	3,753
#10	Liver diseases	3,624
Total Daily Deaths		147,118

NONCOMMUNICABLE DISEASES

Most NCDs are considered preventable because they are caused by modifiable risk factors.



Nine global NCD targets to be attained by 2025 (against a 2010 baseline)



Factores de Riesgo comunes a las principales ECNT



Factor de Riesgo	Enfermedad Crónica No Transmisibles			
	Cardiovascular (Cardíaca, AVE, HTA)	Diabetes	Cáncer	Respiratoria (EPOC, Asma)
Tabaquismo	*	*	*	*
Consumo de Alcohol	*		*	
Nutrición	*	*	*	*
Inactividad física	*	*	*	*
Obesidad	*	*	*	*
Presión Arterial elevada	*	*		
Glicemia	*	*	*	
Lípidos sanguíneos	*	*	*	



**FASTING COULD BE ONE OF THE MOST IMPORTANT INTERVENTION TO REDUCE
NCD BY REDUCING METABOLIC RISK FACTORS**



10 Benefits of Intermittent Fasting

Protect against neurodegenerative diseases



Boost metabolism for fat loss



Insulin levels drop and human growth hormone increases



Extend lifespan, helping you live longer



Reduce insulin resistance and lower blood sugar levels



Reduce oxidative damage and inflammation in the body.



Reduce risk of heart disease



Removes waste material from cells



Reduce blood pressure and cholesterol levels



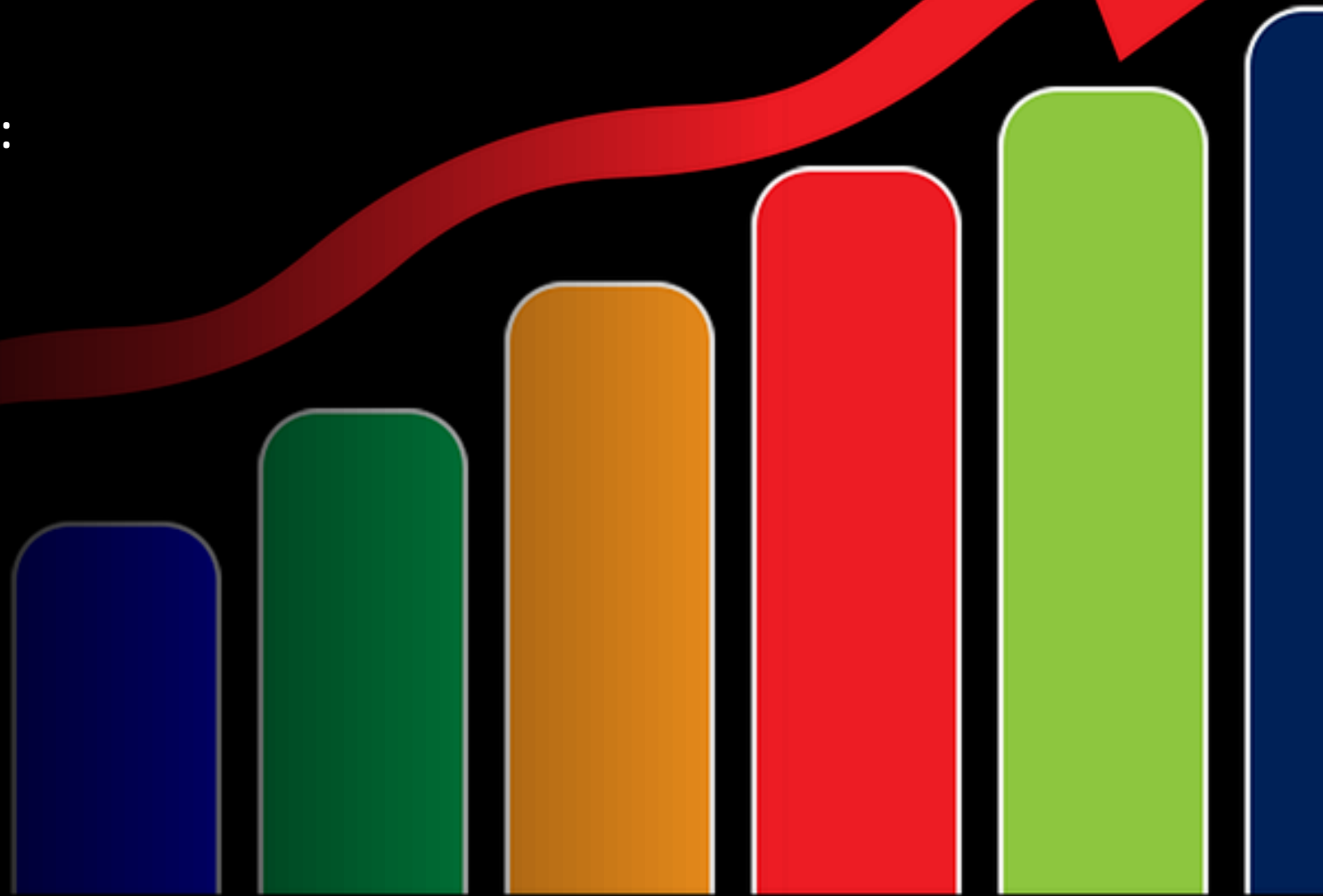
Reduce leptin levels, increasing testosterone





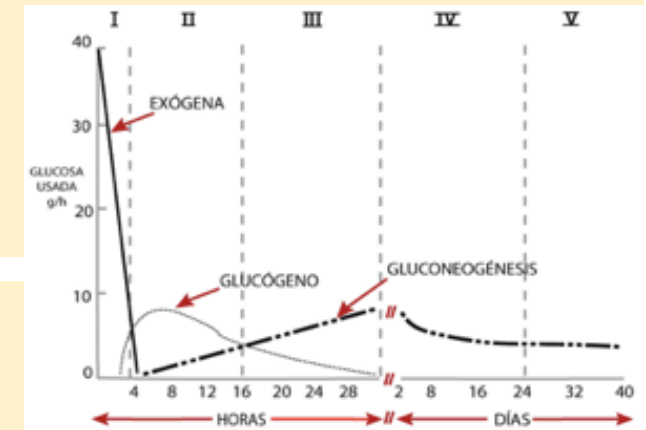
WHAT HAPPENS WHEN WE FAST:

12-16 h: METABOLIC ADAPTATION, GH
16-18 h: AUTOPHAGY
2-4 d: STEM CELLS



THREE PHASES DURING FASTING

- **I PHASE**: glucose + glycogen
- **II PHASE**: fatty acids: ketogenesis-lipolysis
- **III PHASE**: essential proteins=starvation
(end of fasting)



PHASE I

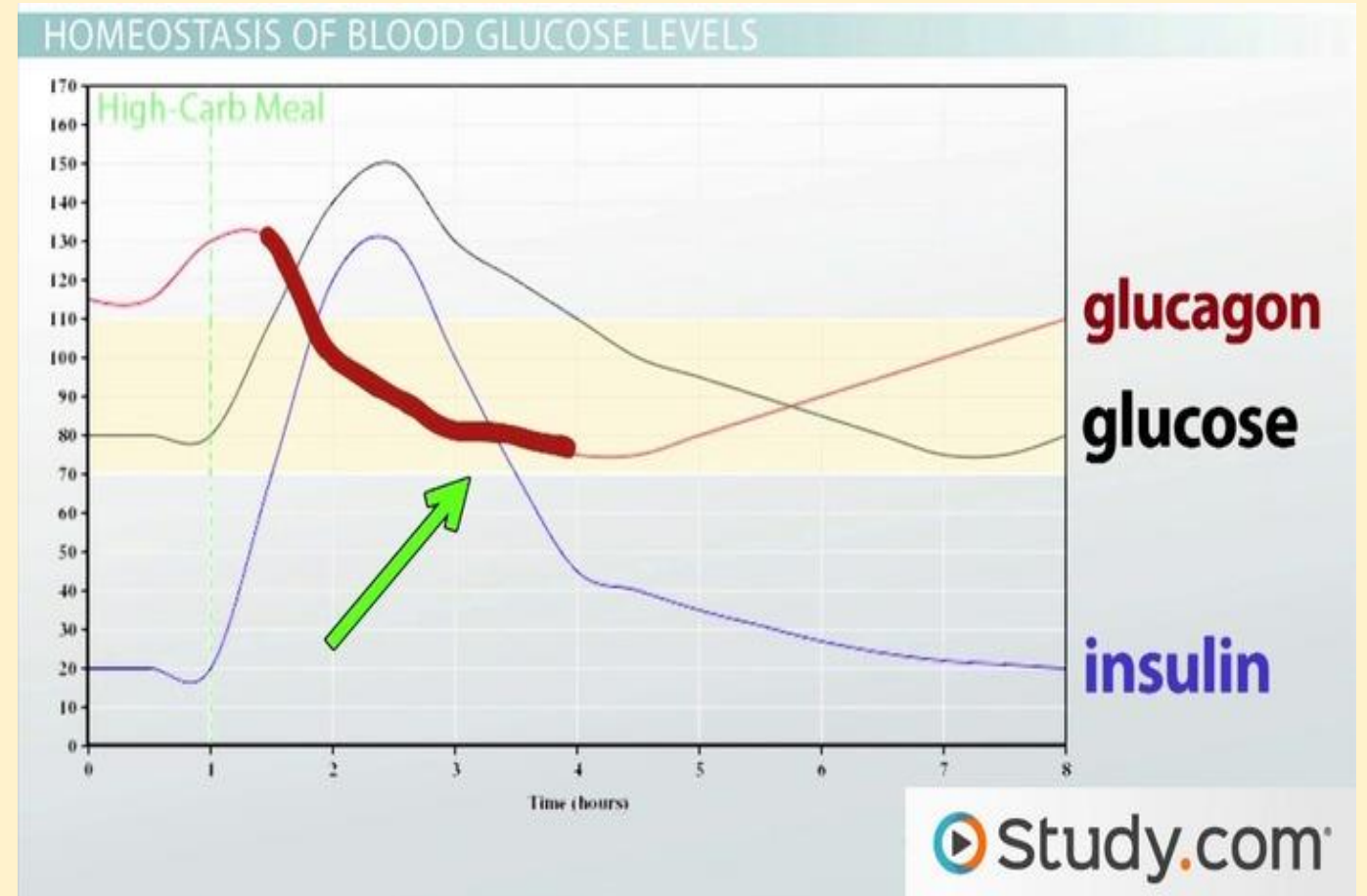
PHASE II

PHASE III

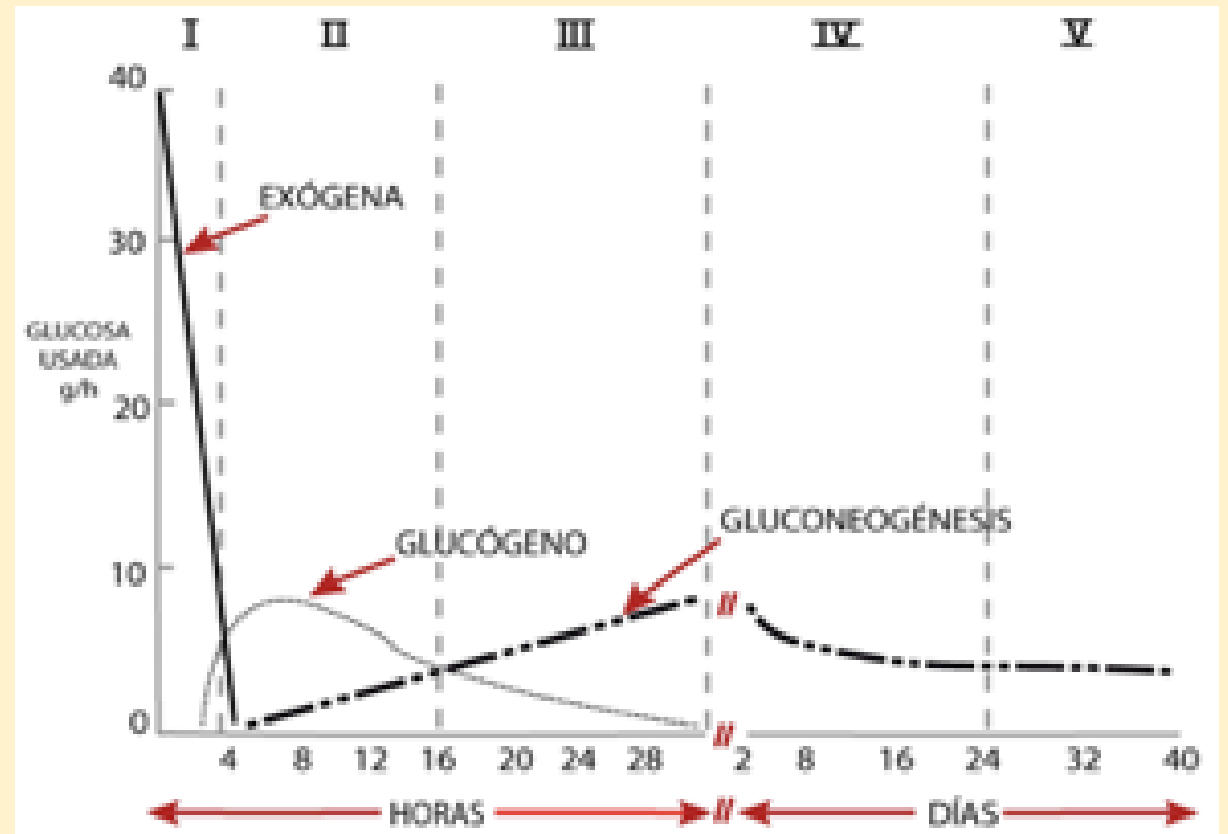
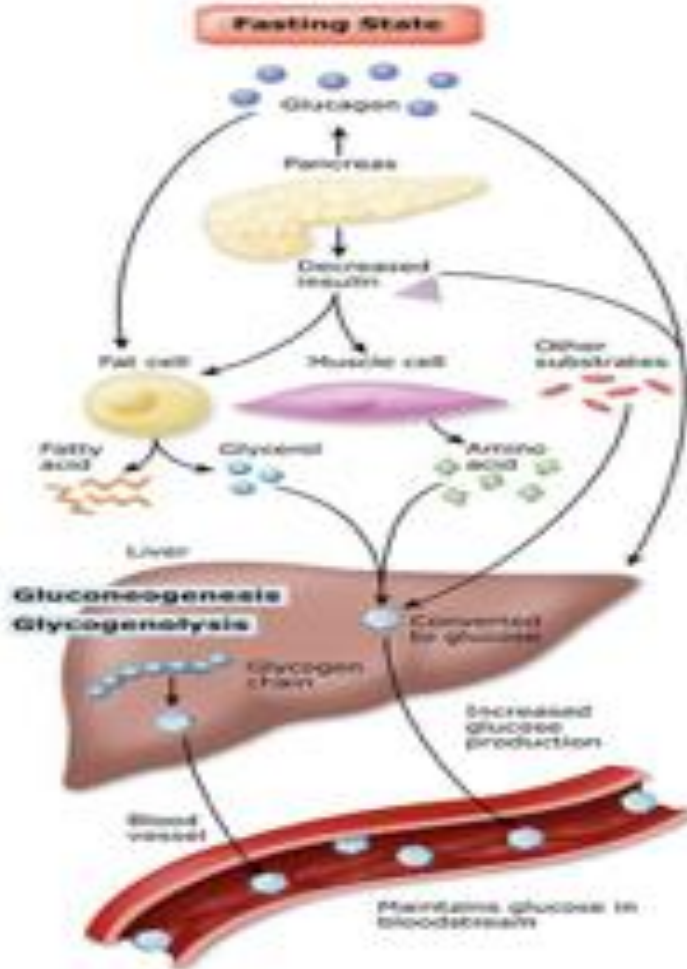
PHASE 1:

24-48 h consuming glucose/glycogen from liver and muscles:

- Low insulin and blood sugar levels
- Increase glucagon
- Glycogenolysis
- Hepatic gluconeogenesis



Glucose Production by Liver During Fasting Conditions (Gluconeogenesis and Glycogenolysis)



PHASE II:

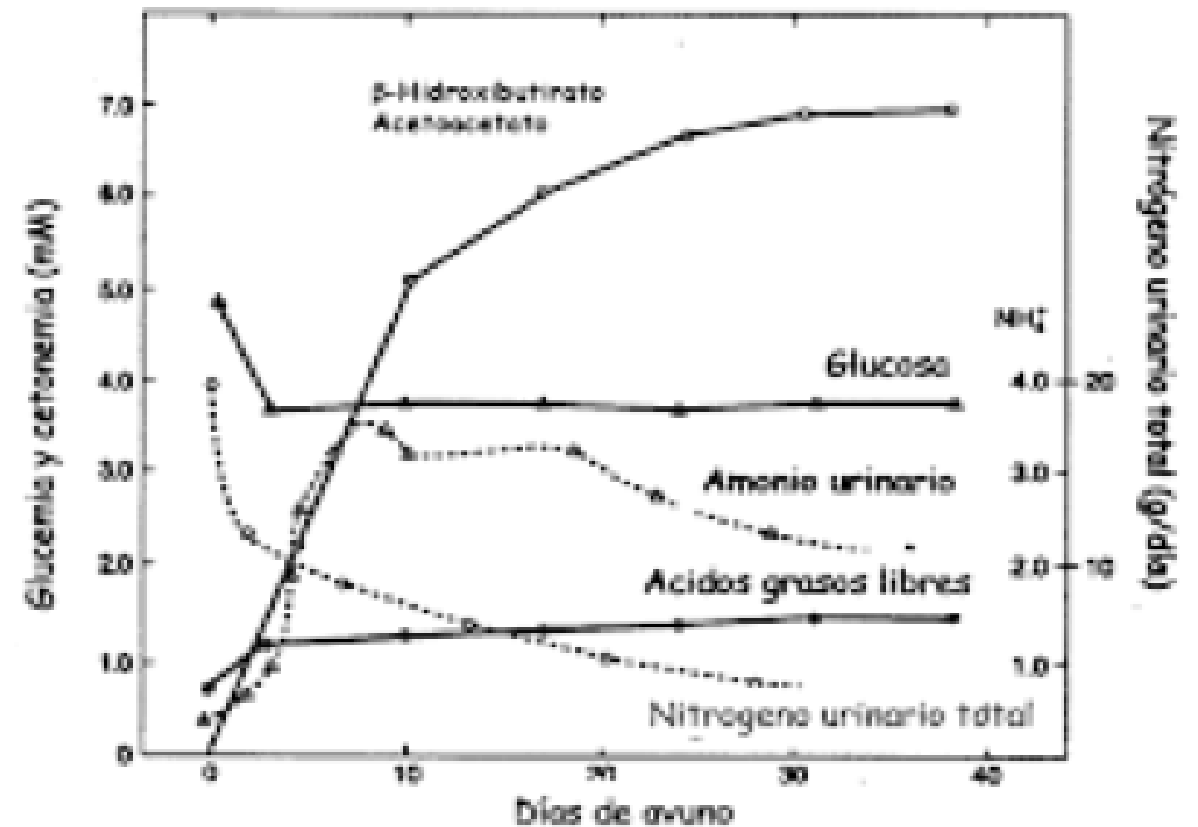
30-40 day (aprox): KETOGENESIS

During fast there is an upregulation of the ketogenic pathway and an increased production of ketone bodies.

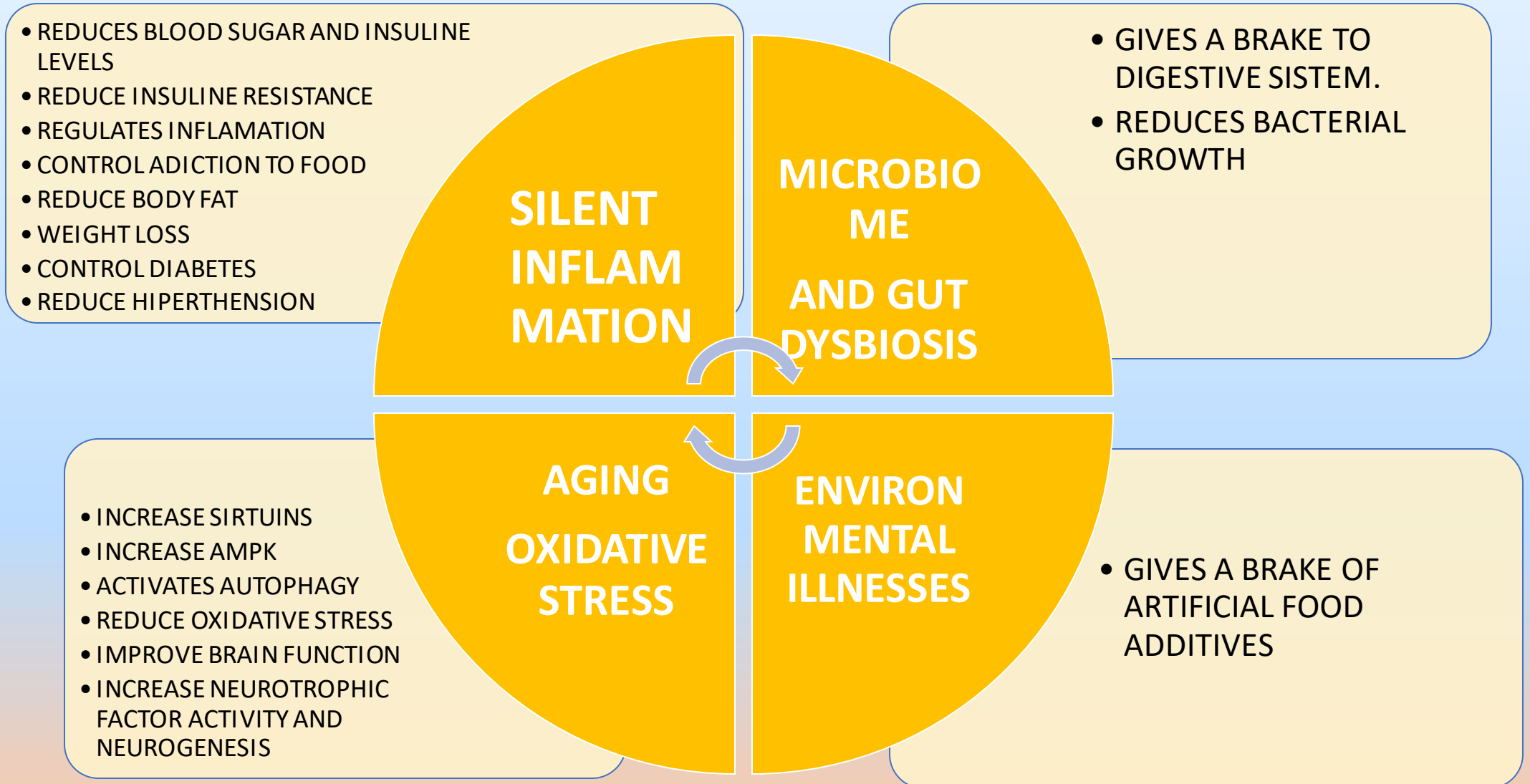
Ketogenesis is a metabolic pathway that produces ketone bodies, which provide an alternative form of energy for the body.

Ketogenesis produces acetone, acetoacetate, and beta-hydroxybutyrate molecules by breaking down fatty acids.

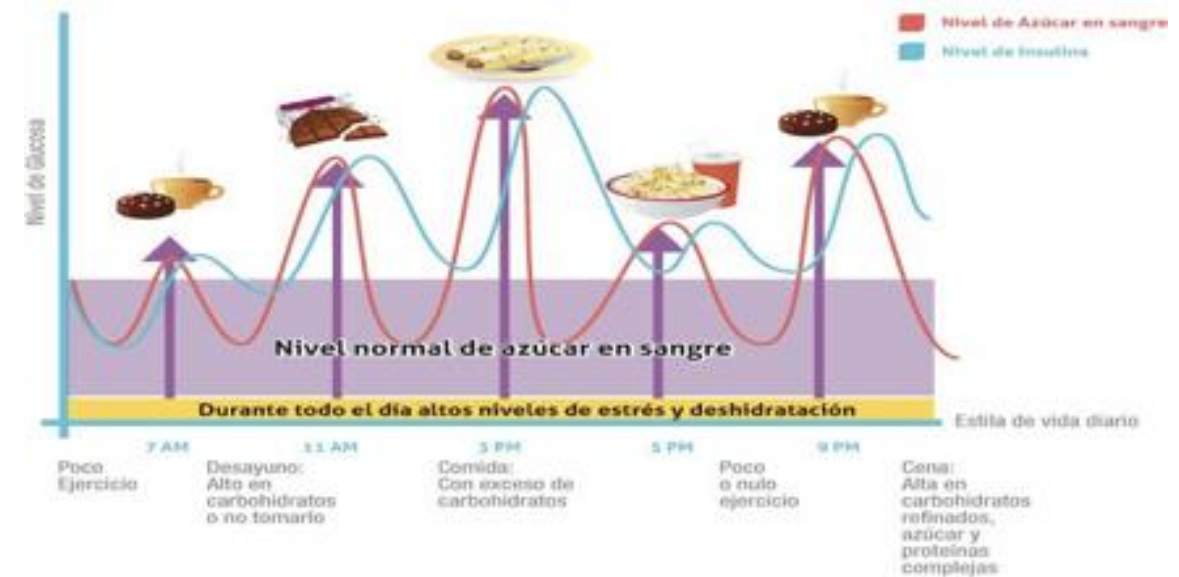
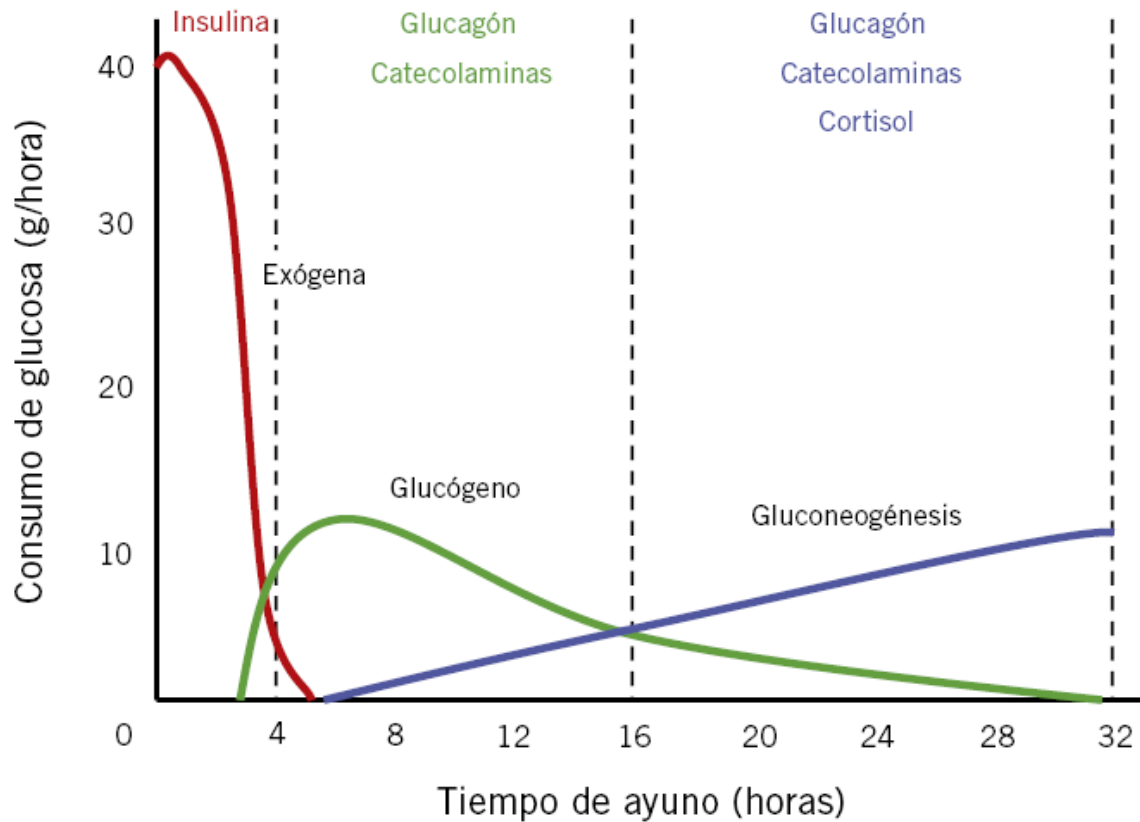
PHASE III: end of fasting. Consuming essential proteins. Risk of oedema or anasarca.



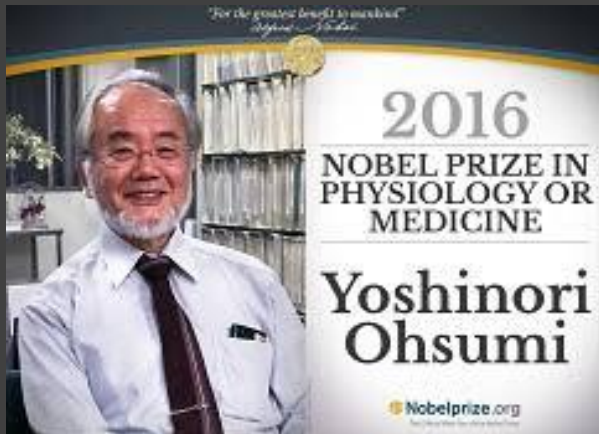
HOW FASTING HEALS:



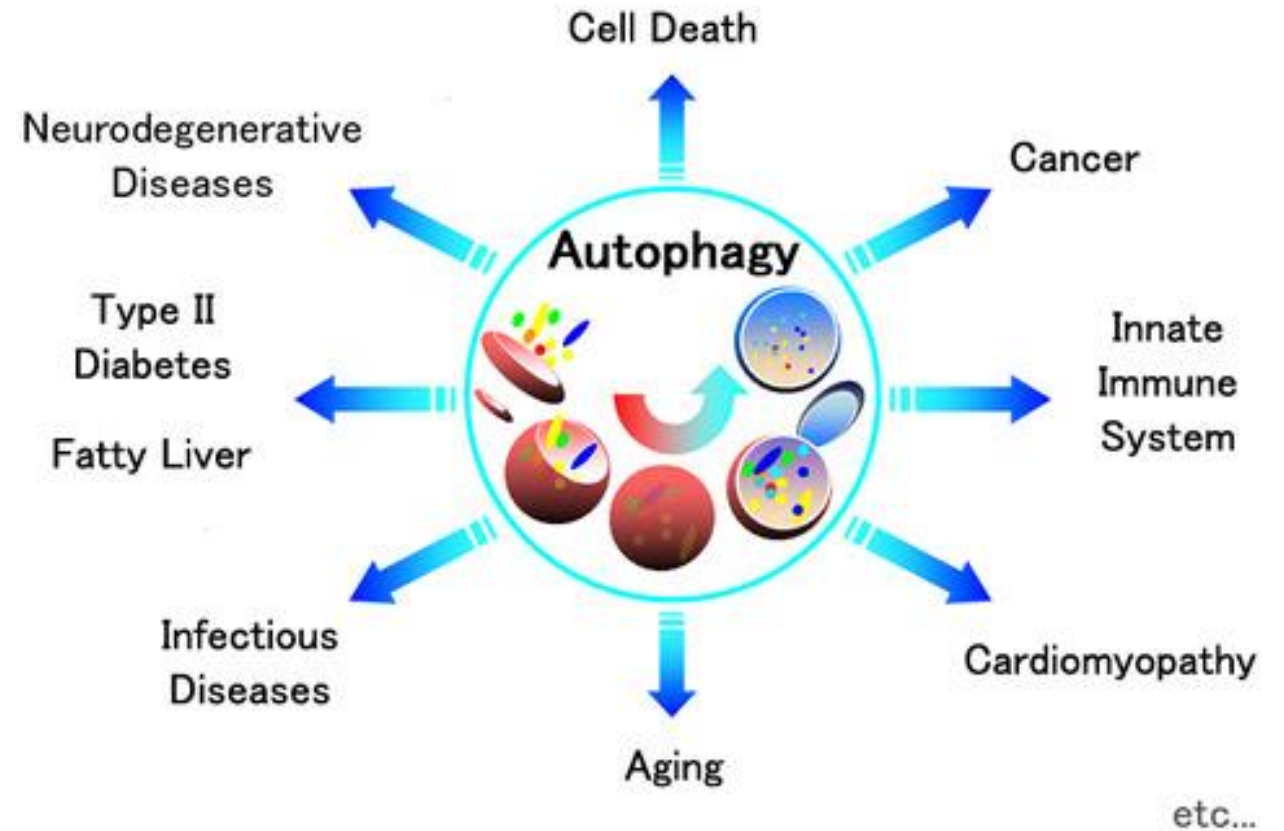
1º Metabolic flexibility and Reduce Low Grade Inflammation

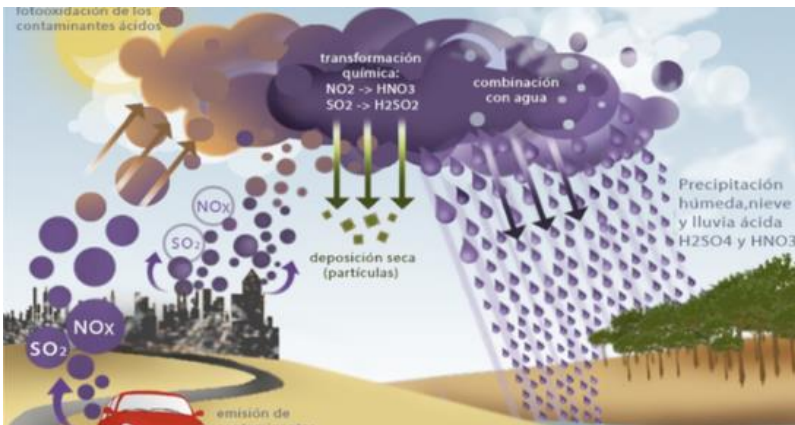
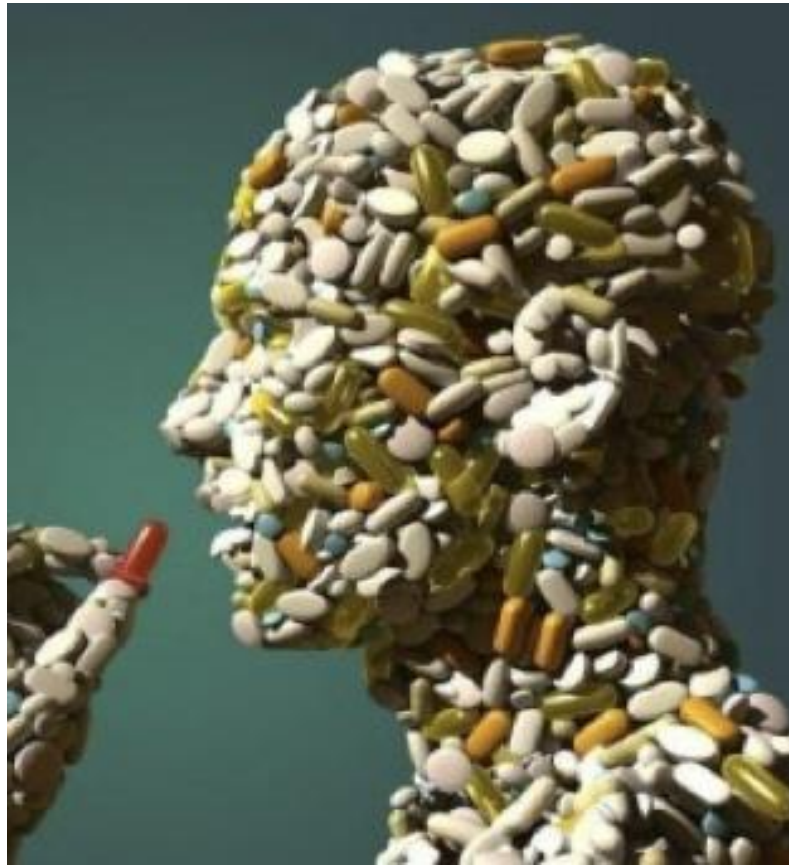


2^o Activates AUTOPHAGY

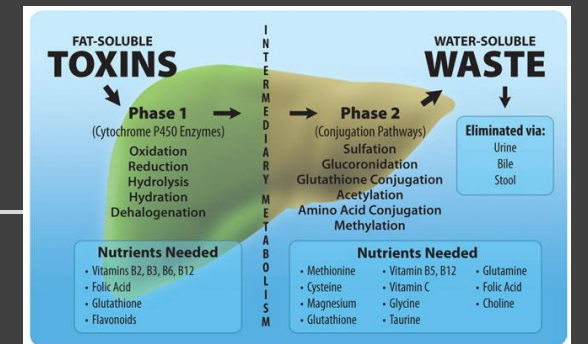


Pathological and Physiological Functions of Autophagy

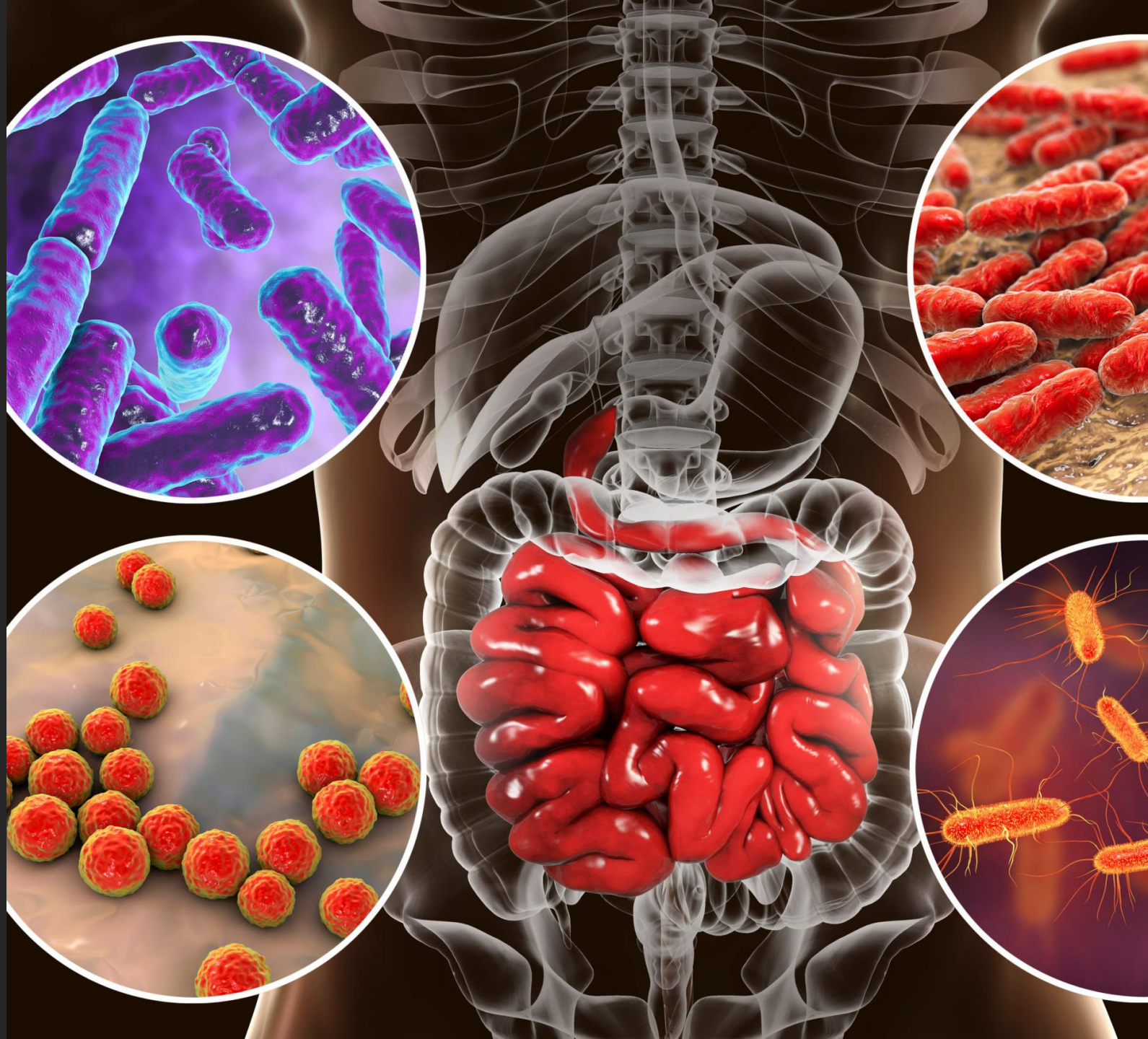




3º Clears toxins



4º Gives your gut
a brake
and
remodelates gut
microbiome



HOW TO FAST:



TYPES OF FASTING:

Prolonged fasting (0-40 days)



Intermittent fasting:


- 12:12
- 16:8
- 5:2
- Eat-stop-eat
- Alternate day fasting
- Fasting Mimicking Diet



Who should not fast?

- Children, teenagers
 - Pregnant/breastfeeding women
 - Eating disorders (anorexia/bulimia)
 - Diabetes type 1 and advanced diabetes
 - Liver or renal insufficiency
 - People underweight/frail/elderly
-
- *For prolonged fasting its recommended to consult a doctor experted in fasting!*

Dra Camino Díaz

- www.dracaminodiaz.com
- consultas@dracaminodiaz.com
-  dra.caminodd



BIBLIOGRAPHY:

<https://www.ncbi.nlm.nih.gov/pubmed/17934054>
<https://academic.oup.com/ajcn/article/102/2/464/4564588>
<https://www.ncbi.nlm.nih.gov/pubmed/16529878>
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4516560/>
<https://www.annualreviews.org/doi/full/10.1146/annurev-nutr-071816-064634>
<https://www.ncbi.nlm.nih.gov/pubmed/21106691>
[https://www.cell.com/cell-metabolism/pdfExtended/S1550-4131\(18\)30253-5](https://www.cell.com/cell-metabolism/pdfExtended/S1550-4131(18)30253-5)
<https://www.ncbi.nlm.nih.gov/pubmed/10837292>
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4209007/>
<https://www.ncbi.nlm.nih.gov/pubmed/24440038>
<https://www.sciencedirect.com/science/article/pii/S1550413112001891>
<https://www.sciencedirect.com/science/article/pii/S1550413114004987>
<https://www.ncbi.nlm.nih.gov/pubmed/26784324>
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3670843/>
<https://onlinelibrary.wiley.com/doi/full/10.1002/oby.20032>
<https://www.ncbi.nlm.nih.gov/pubmed/21123466>
<https://translational-medicine.biomedcentral.com/articles/10.1186/s12967-016-1044-0>
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6004924/>

Wilhelmi De Toledo, Hubert Hohler. Therapeutic Fasting: The Buchinger Amplus Method. Thieme, 2011.

