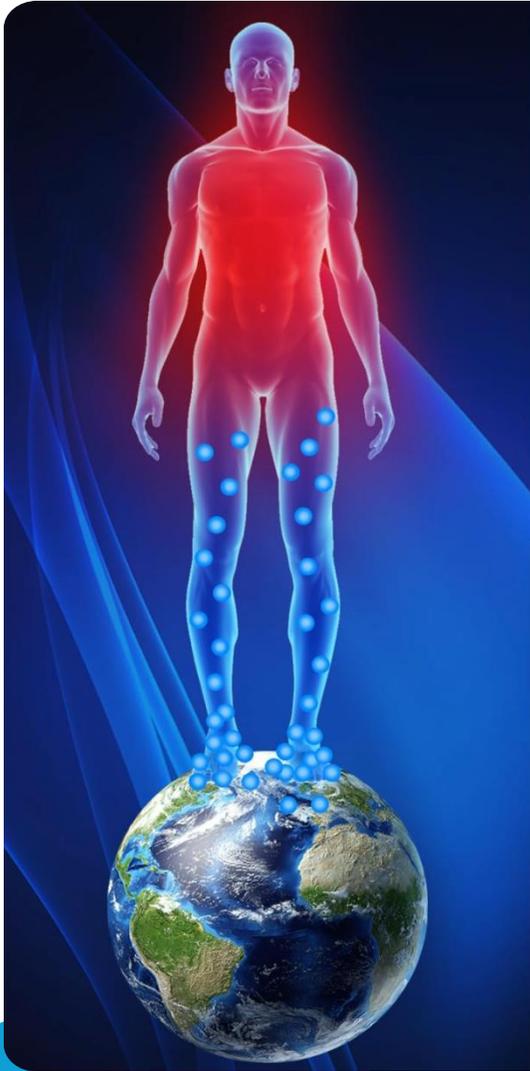


# THE SHOCKING SCIENCE OF GROUNDING!



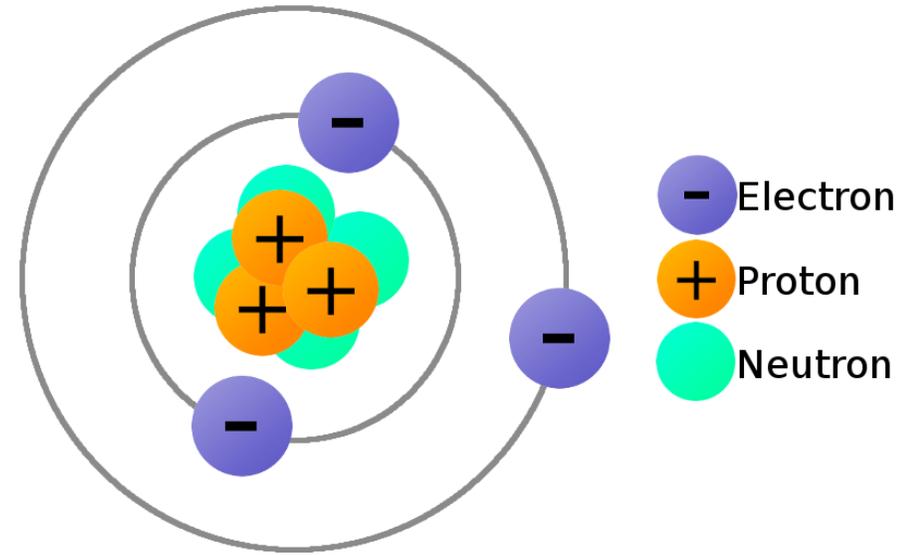


**Connect to  
Grounding Product  
=  
Connect to The Earth**

The earth is like a battery,  
on which surface the charge  
is negative.

The human body is also a  
battery. When you connect to  
the Earth, you maintain the  
body at Earth's electric  
potential.

- **When you touch a grounding mat,** electrons from the Earth flow into your body because the Earth has a much larger reservoir of negative charge.

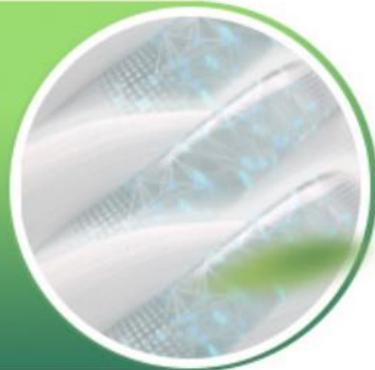




**20%**  
**SILVER FIBER**

**RESTEMBRACE  
GROUNDING**

THE PRODUCT CONTAINS 20%  
SILVER FIBER +80% COTTON,  
BETTER GROUNDING EFFECT



[https://www.amazon.com/dp/B0FLJTV5YL?ref=ppx\\_yo2ov\\_dt\\_b\\_fed\\_asin\\_title](https://www.amazon.com/dp/B0FLJTV5YL?ref=ppx_yo2ov_dt_b_fed_asin_title)



Enhanced by RestEmbrace Grounding's Exclusive Antioxidant Technology and 20% Ultra-High Silver Content—for Over 5× Better Grounding and Durability



## Free Radicals in the Body

Free radicals are **unstable molecules with unpaired electrons that can damage cells and tissues**. They are naturally produced in the body as byproducts of metabolism and other processes, but can also be generated by external factors such as pollution, smoking, and radiation. 

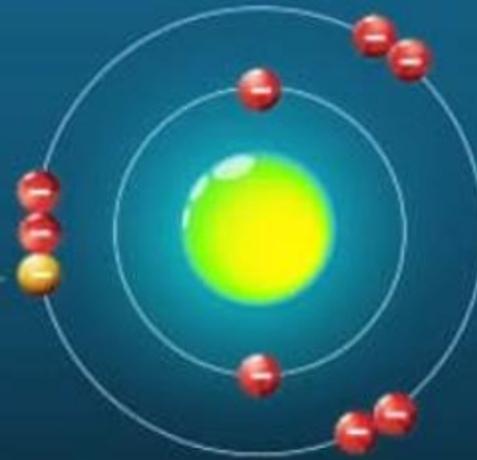
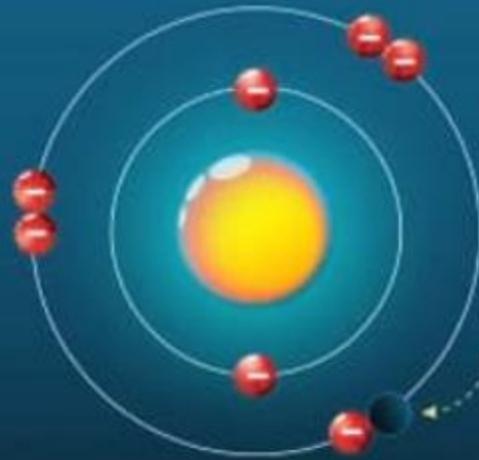
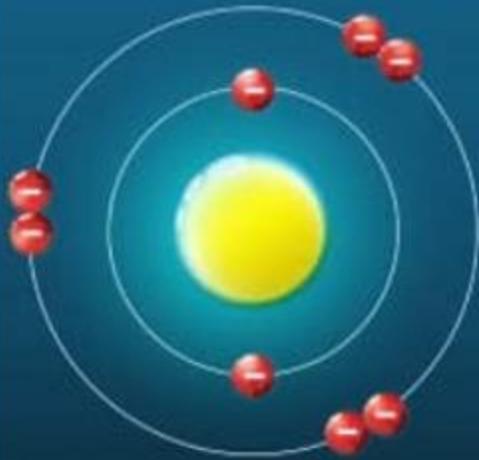
[https://www.google.com/search?q=free+radicals+in+the+body&rlz=1C5CHFA\\_enUS1118US1118&oq=free+radicals+in+&gs\\_lcrp=EgZjaHJvbWUqBwgAEAAyGAQyBwgAEAAyGAQyDQgBEAAyKQIYgAQYigUyBggCEEUYOTINCAMQABiRAhiABBiKBTIHCAQQABiABDIHCAUQABiABDINCAyQABiRAhiABBiKBTIHCAcQABiAB](https://www.google.com/search?q=free+radicals+in+the+body&rlz=1C5CHFA_enUS1118US1118&oq=free+radicals+in+&gs_lcrp=EgZjaHJvbWUqBwgAEAAyGAQyBwgAEAAyGAQyDQgBEAAyKQIYgAQYigUyBggCEEUYOTINCAMQABiRAhiABBiKBTIHCAQQABiABDIHCAUQABiABDINCAyQABiRAhiABBiKBTIHCAcQABiAB)

# OXIDATIVE STRESS

Stable molecule

Free radical

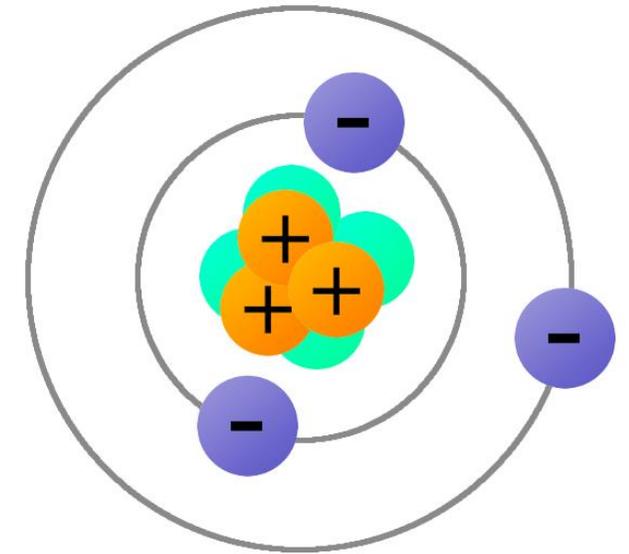
Antioxidant



Right amount of electrons

One or more unpaired electrons in external orbitals

Extra electron to donate



## Vitamins

- **Vitamin C** (ascorbic acid)
- **Vitamin E** (tocopherols, tocotrienols)
- **Vitamin A** (retinol, beta-carotene as precursor)

## Minerals (with antioxidant roles)

- **Selenium**
- **Zinc**
- **Manganese**
- **Copper**

## **Plant Compounds (Phytonutrients)**

- **Flavonoids** (quercetin, catechins, anthocyanins)
- **Carotenoids** (beta-carotene, lycopene, lutein, zeaxanthin)
- **Polyphenols** (resveratrol, curcumin, EGCG)
- **Glucosinolates** (sulforaphane in broccoli, kale, Brussels sprouts)

## **Endogenous (made inside the body)**

- **Glutathione**
- **Coenzyme Q10 (CoQ10)**
- **Alpha-lipoic acid**
- **Superoxide dismutase (SOD)**
- **Catalase**

## **Therapeutic/Research Antioxidants**

- **Methylene Blue** → Works as a redox agent, helps mitochondria, reduces oxidative stress, and has neuroprotective effects.



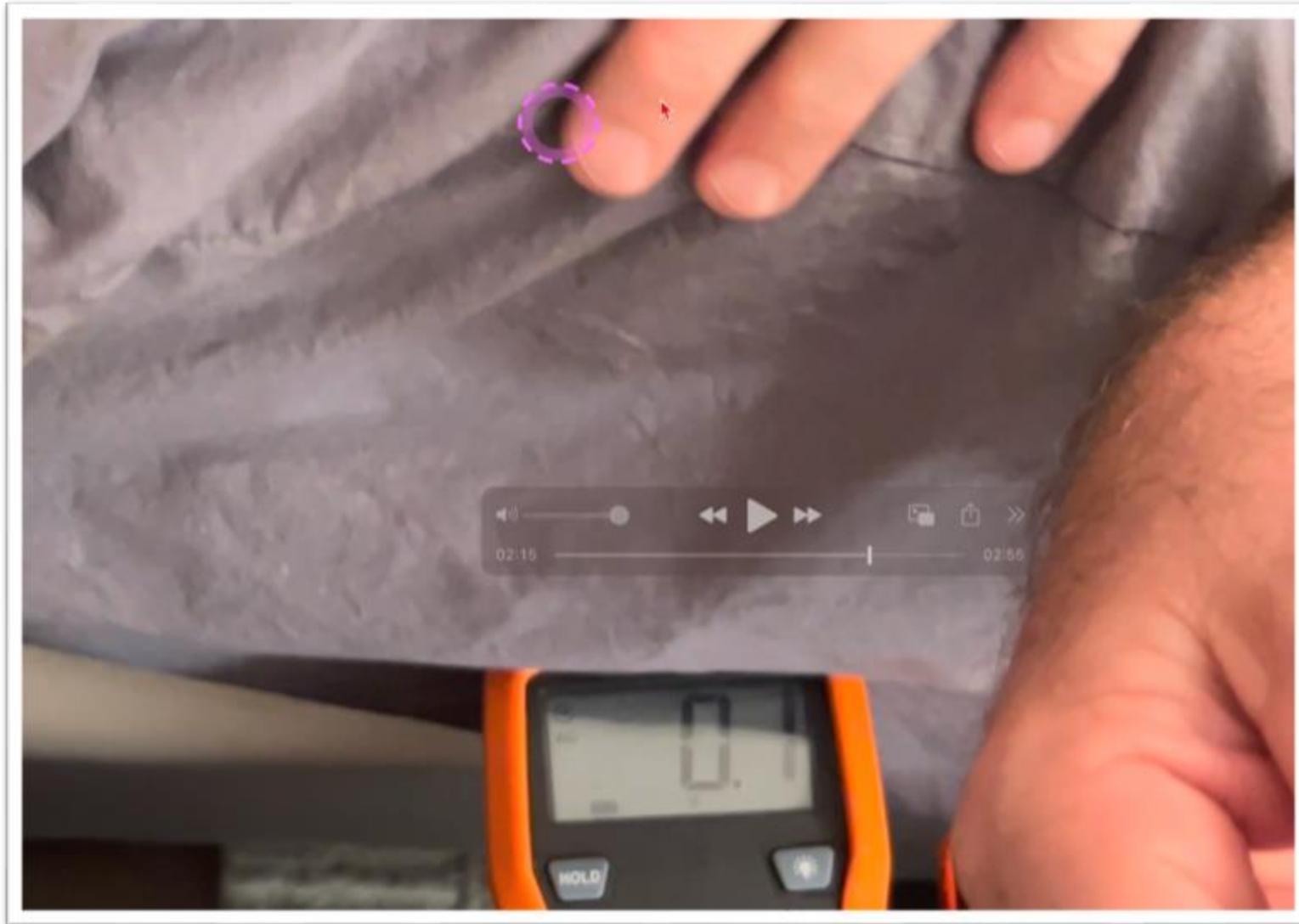
A body with too many free radicals may experience an imbalance known as oxidative stress, which contributes to the development and progression of various diseases, including cancer, heart disease, neurodegenerative conditions (like Alzheimer's), respiratory diseases (like asthma and COPD), inflammatory conditions (like arthritis and inflammatory bowel disease), and kidney disease. 

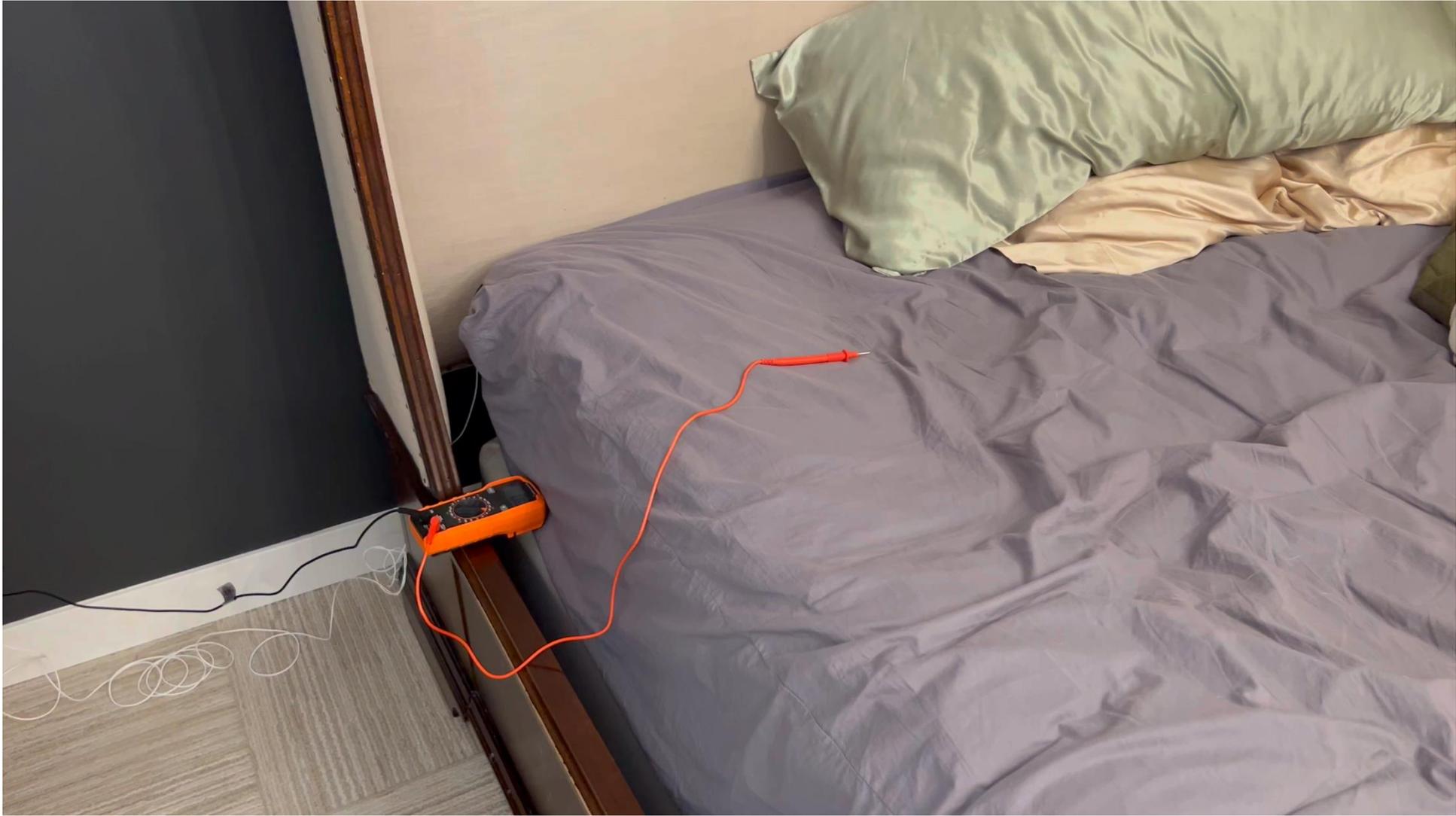
- [https://www.google.com/search?sca\\_esv=bbe3debe957613b7&rlz=1C5CHFA\\_enUS1118US1118&sxsrf=AE3TifPVimzsaKQUQb svATkvRYasyZtQIQ:1759761231734&q=What+diseases+grow+in+a+body+that+have+a+lot+of+free+radicals&source=lnms&fbs=AlljpHxU7SXXniUZfeShr2fp4giZ1Y6MJ25\\_tm](https://www.google.com/search?sca_esv=bbe3debe957613b7&rlz=1C5CHFA_enUS1118US1118&sxsrf=AE3TifPVimzsaKQUQb svATkvRYasyZtQIQ:1759761231734&q=What+diseases+grow+in+a+body+that+have+a+lot+of+free+radicals&source=lnms&fbs=AlljpHxU7SXXniUZfeShr2fp4giZ1Y6MJ25_tm)

# Grounding Sheet NOT Plugged In!

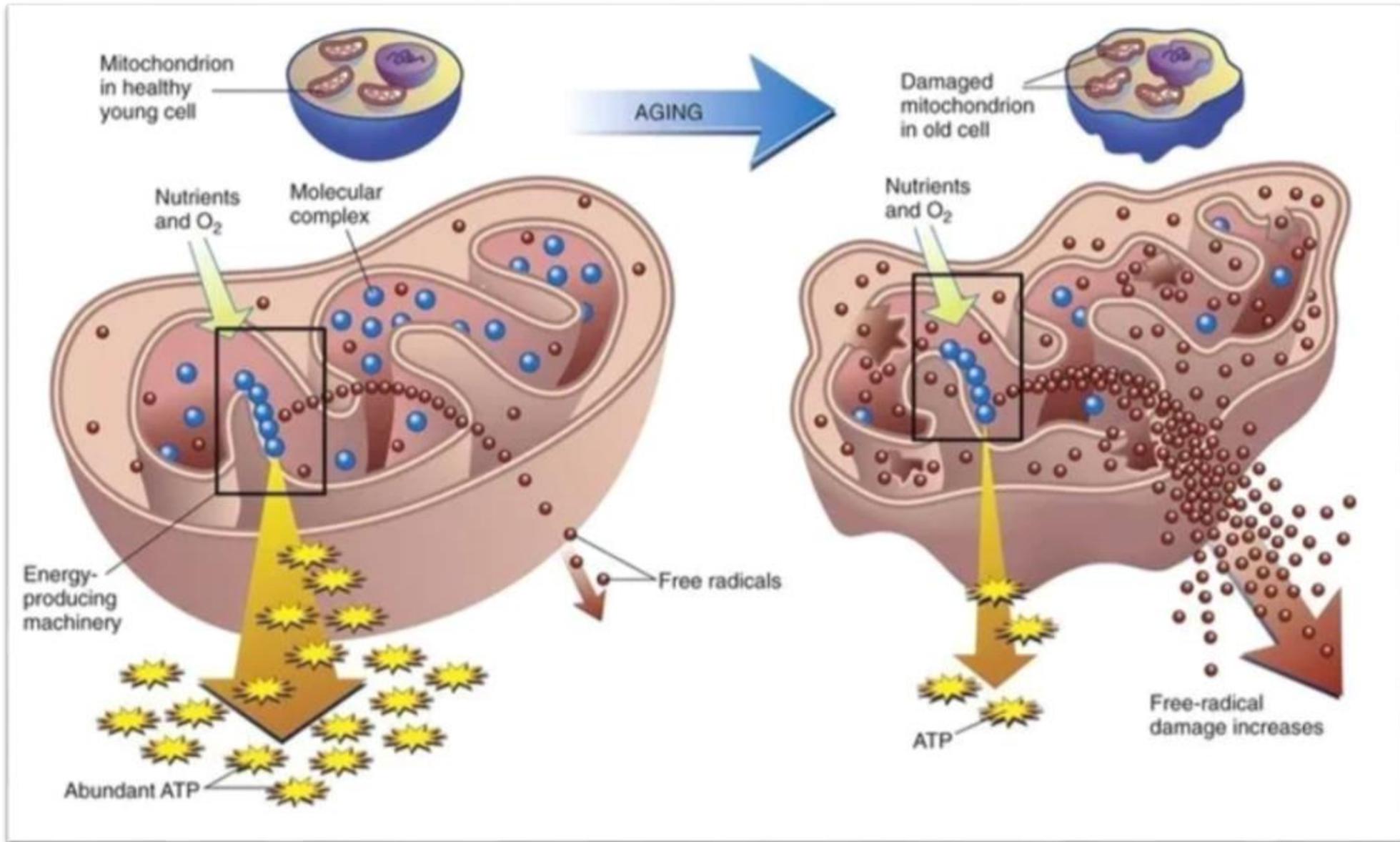


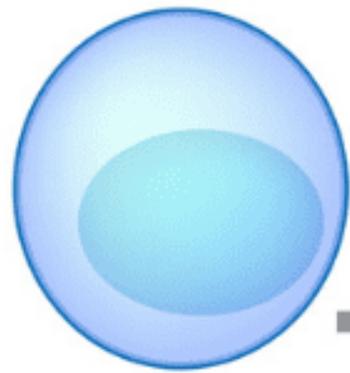
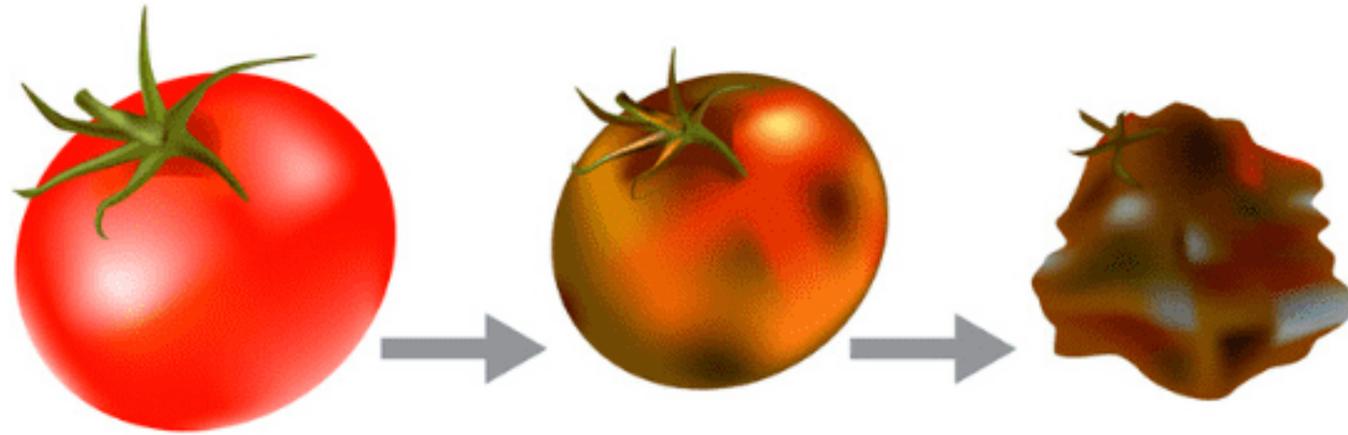
# Grounding Sheet PLUGGED In!



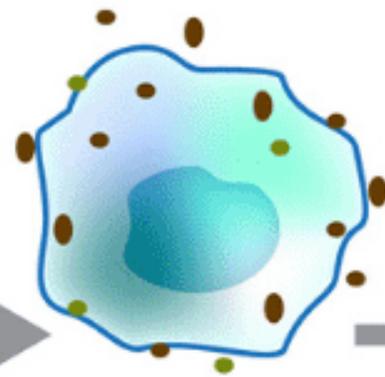




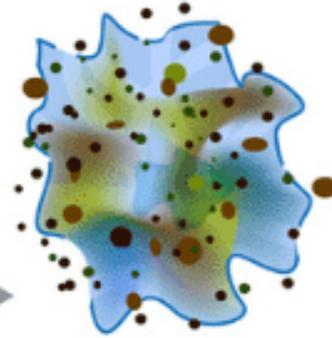




NORMAL CELL



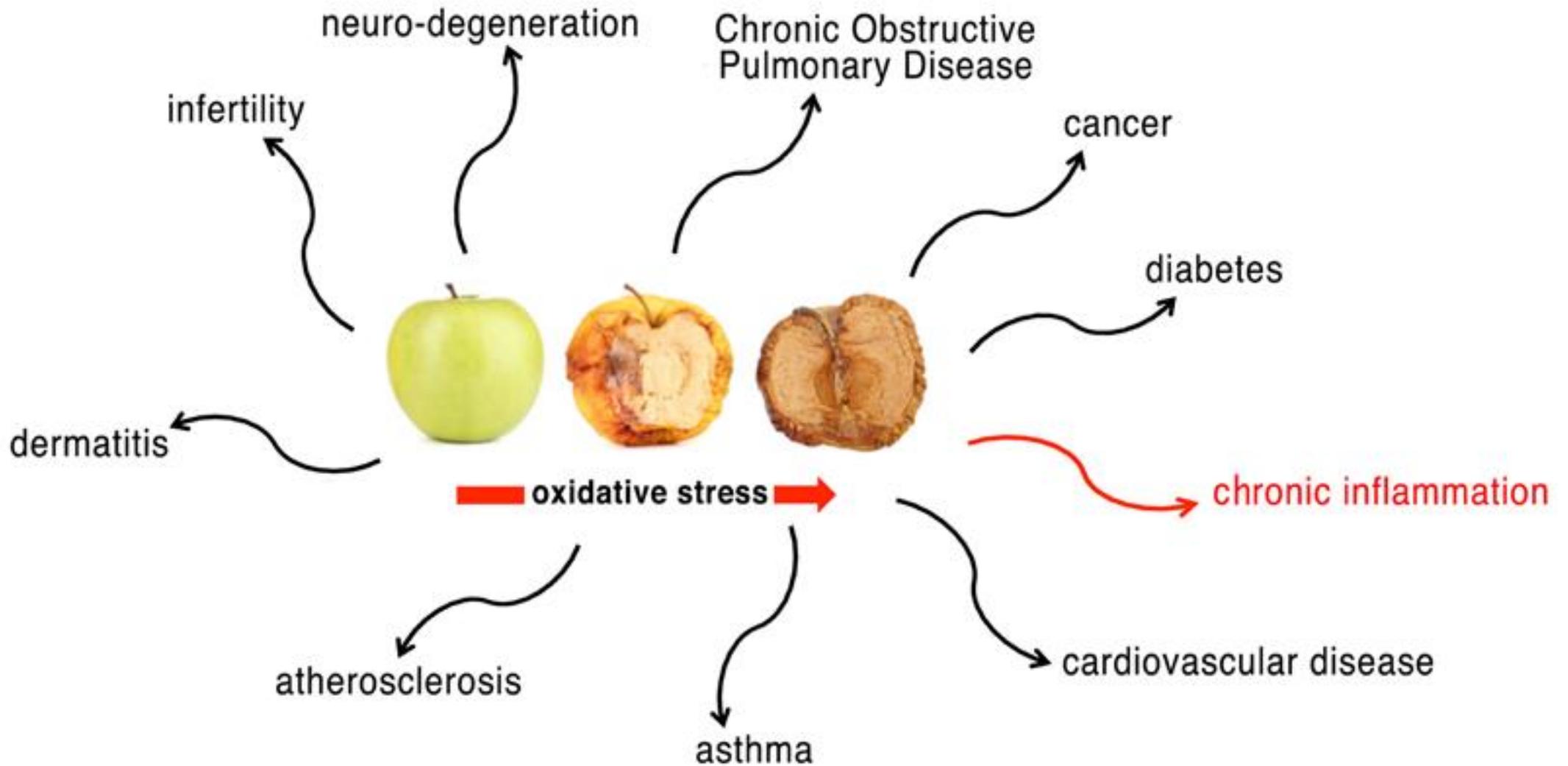
CELL ATTACKED BY FREE  
RADICALS



CELL WITH  
OXIDATIVE STRESS

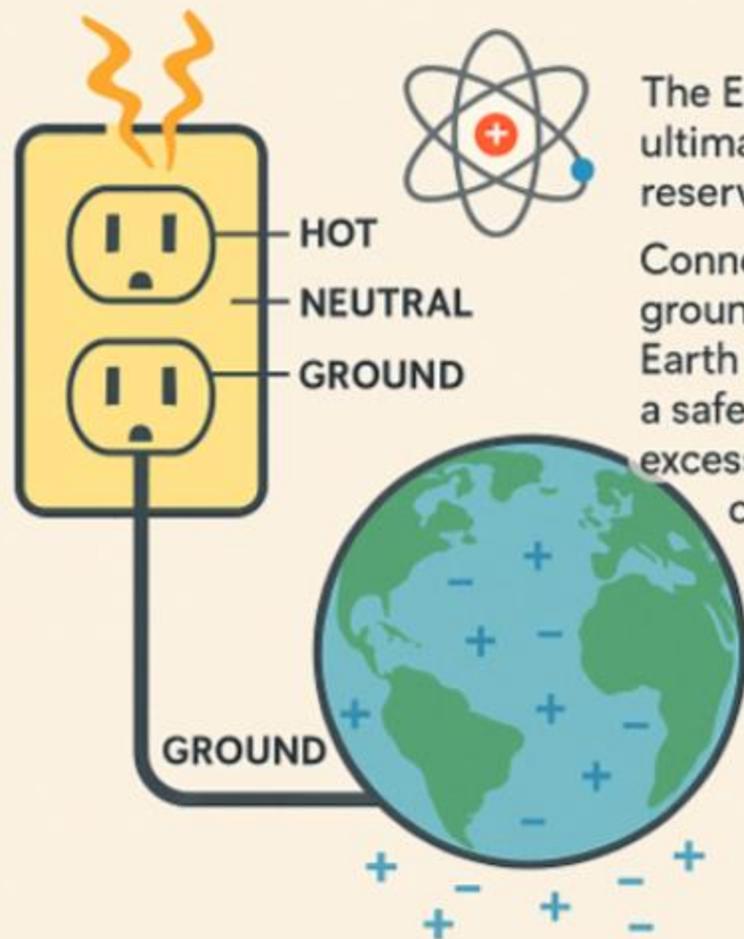
## OXIDATIVE STRESS CAN CAUSE:

- Cancer
- Vision loss
- Heart disease
- Arthritis
- Stroke
- Respiratory diseases
- Immune deficiency
- Emphysema
- Parkinson's or Alzheimer's disease
- Fast aging
- Obesity
- Hair loss
- Other inflammatory or ischemic conditions



[https://www.researchgate.net/publication/312202111\\_The\\_role\\_of\\_peroxiredoxins\\_in\\_cancer\\_Review](https://www.researchgate.net/publication/312202111_The_role_of_peroxiredoxins_in_cancer_Review)

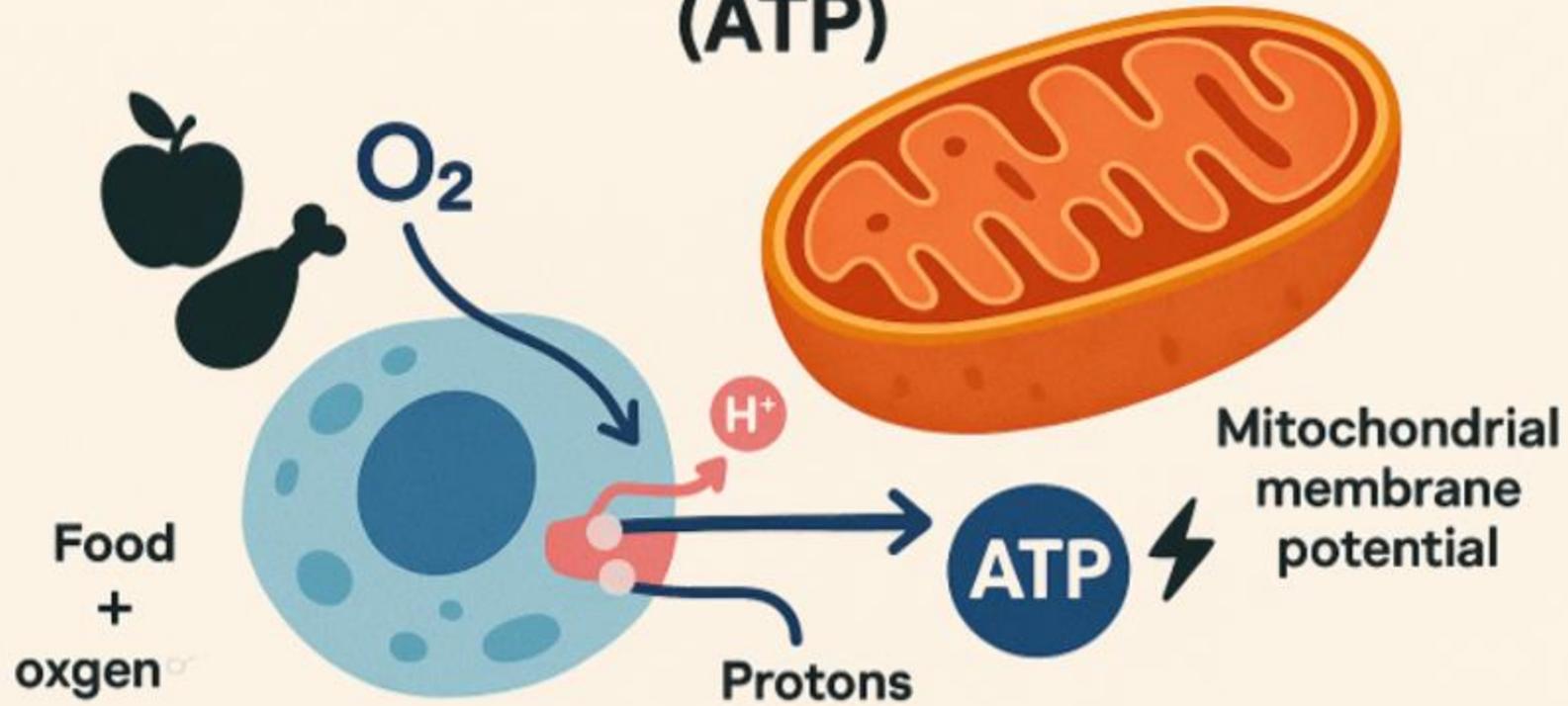
## Why Use the Earth as Ground?



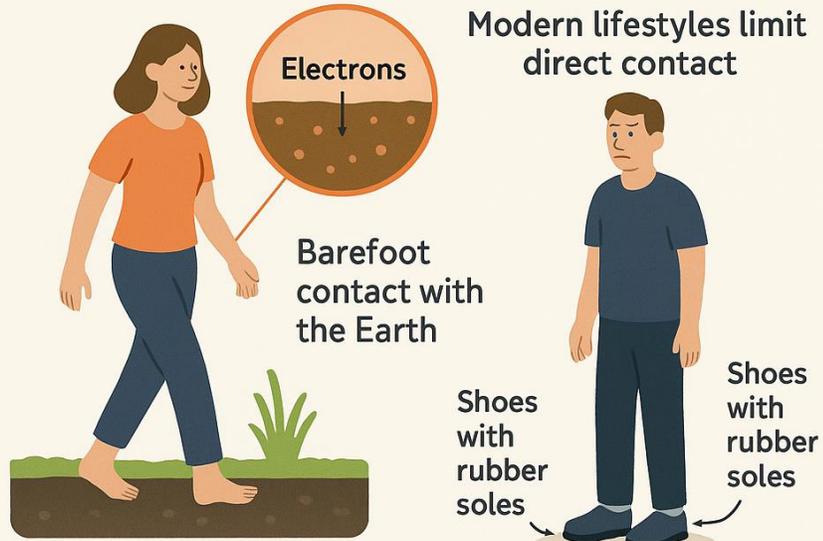
The Earth is the ultimate neutral reservoir.

Connecting a ground wire to the Earth provides a safe path for excess electric current.

# Your mitochondria produce energy (ATP)



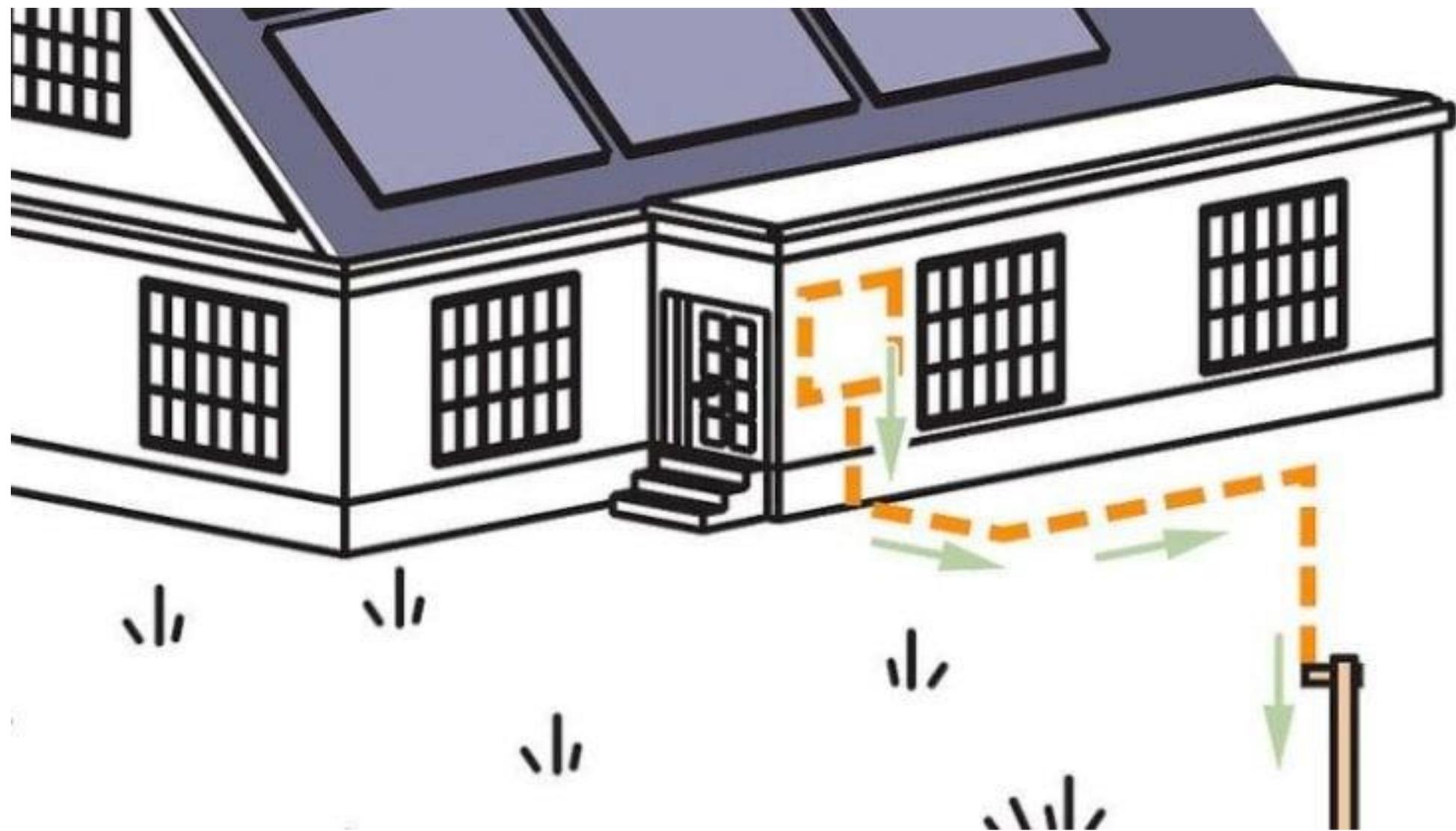
They act like tiny batteries inside your cells



Barefoot contact with the Earth

**GROUNDING SHEETS & MATS**  
transfer electrons from the Earth to the body







# Grounding Improves Blood Flow

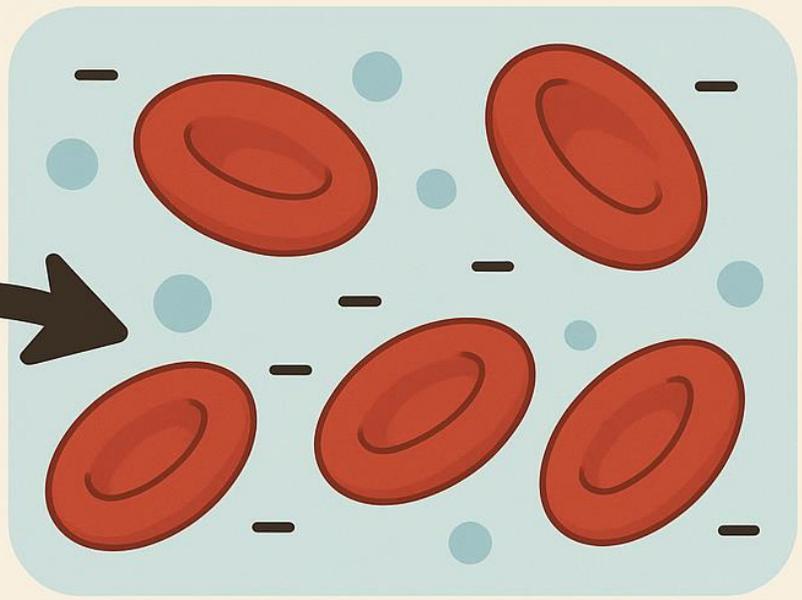
Before Grounding



Weak negative charge

Reduced blood flow

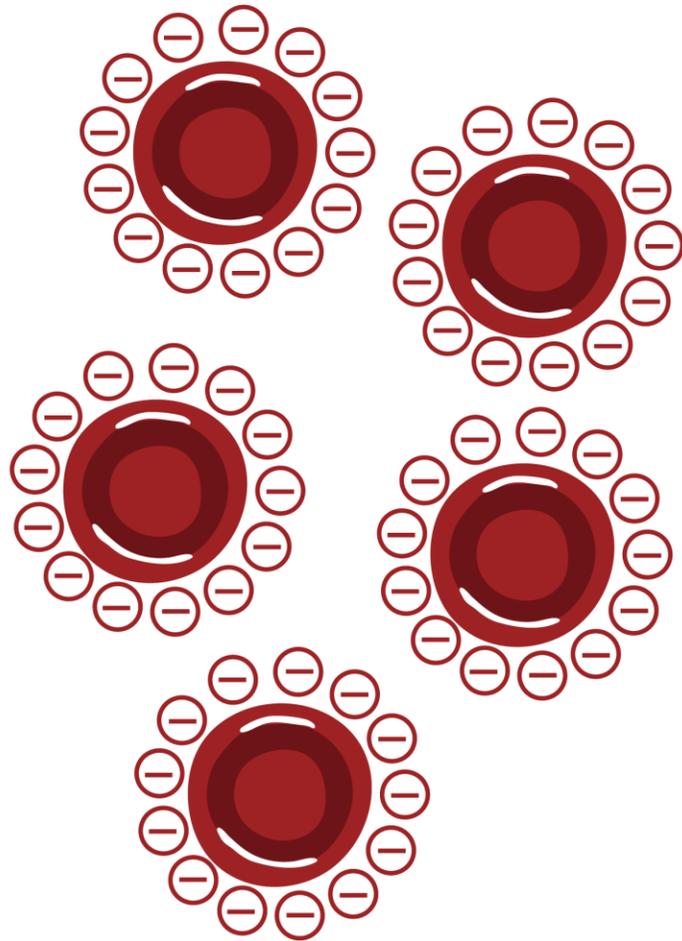
After Grounding



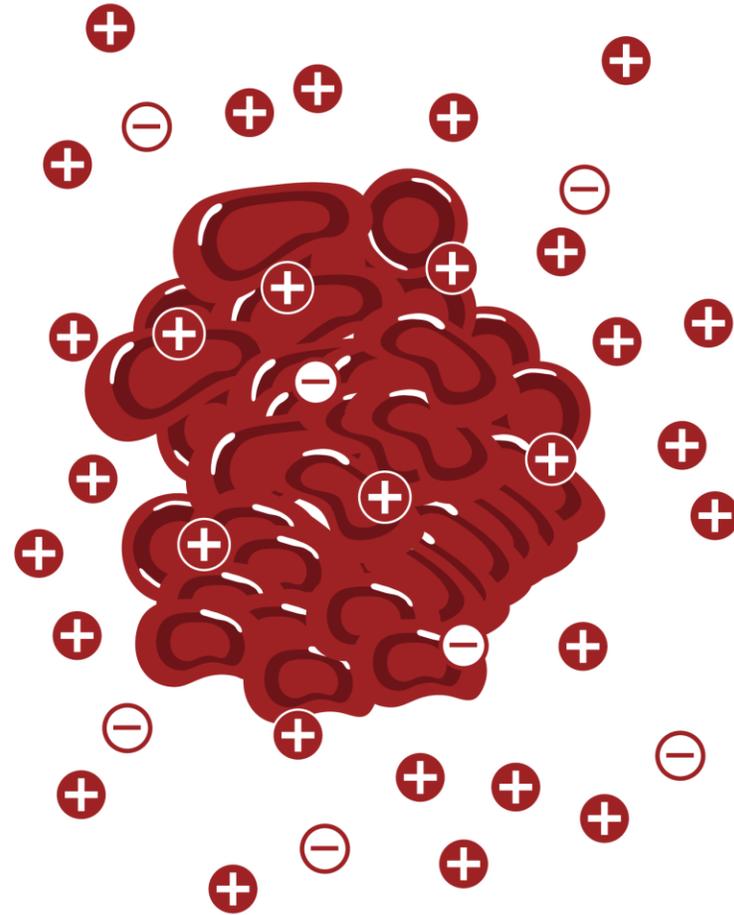
Stronger negative charge

Improved blood flow

## Zeta potential of RBC



## Abnormality in zeta potential

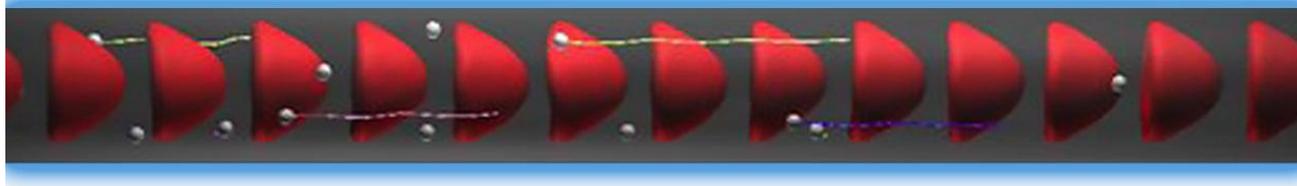


# EARTHING CAPILLARY FLOW



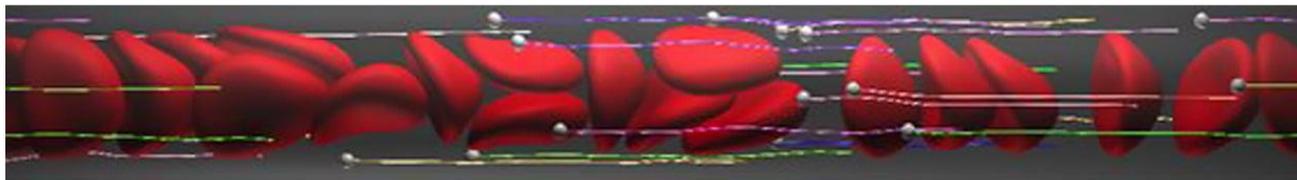
## **GROUNDED:**

maintain separation  
via surface charge.

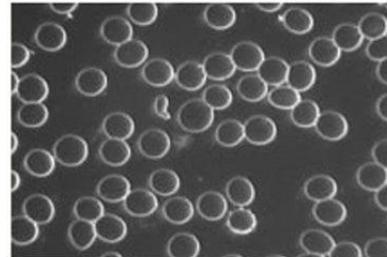
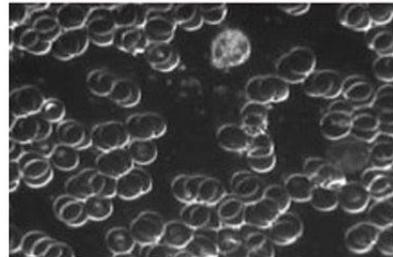
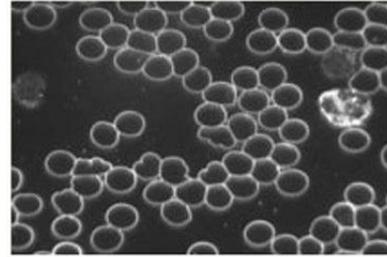
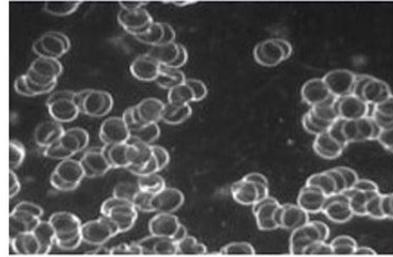
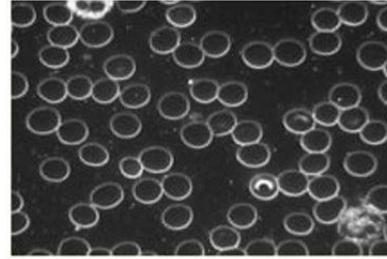
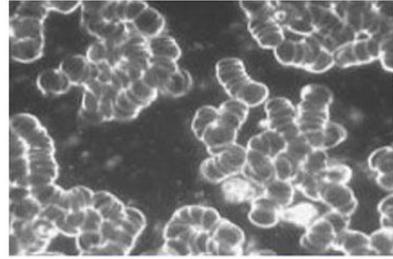


## **NOT GROUNDED:**

less surface charge  
causes cluttered motion.



# THE EFFECT OF GROUNDING ON THE BLOOD



Blood Flow **Before**  
= Thick and Clumpy

Blood Flow **After**  
= Thinner & Fluid

<https://pubmed.ncbi.nlm.nih.gov/22757749/>



Grounding (or *earthing*) is the process of creating a **direct conductive connection between the human body and the earth's surface electrons**, usually through skin contact with soil, grass, sand, water, or by using conductive grounding systems (sheets, mats, straps).

From a technical standpoint:

- The earth maintains a **negative electrical potential** due to its vast store of free electrons.
- When the body is grounded, these electrons can flow into the body, helping to **neutralize positively charged free radicals**, which may reduce oxidative stress and inflammation.
- Grounding also helps **stabilize the body's electrical environment**, supporting circadian rhythm regulation, nervous system balance, and potentially improving sleep and recovery.

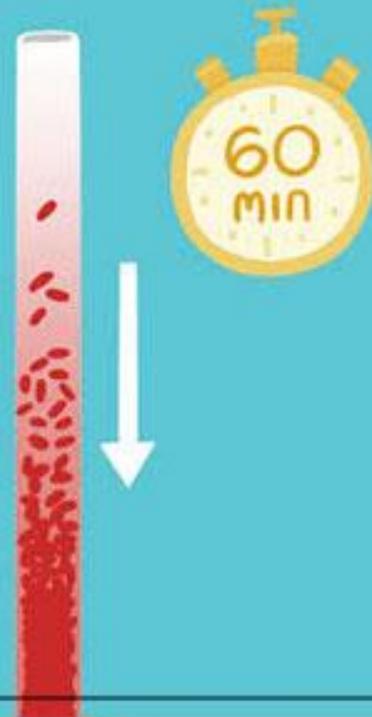
So in both electrical and biological systems, grounding provides a **reference point, stability, and protection against electrical imbalance**.

## How the Sed Rate Test Works

Phlebotomist draws blood into tube



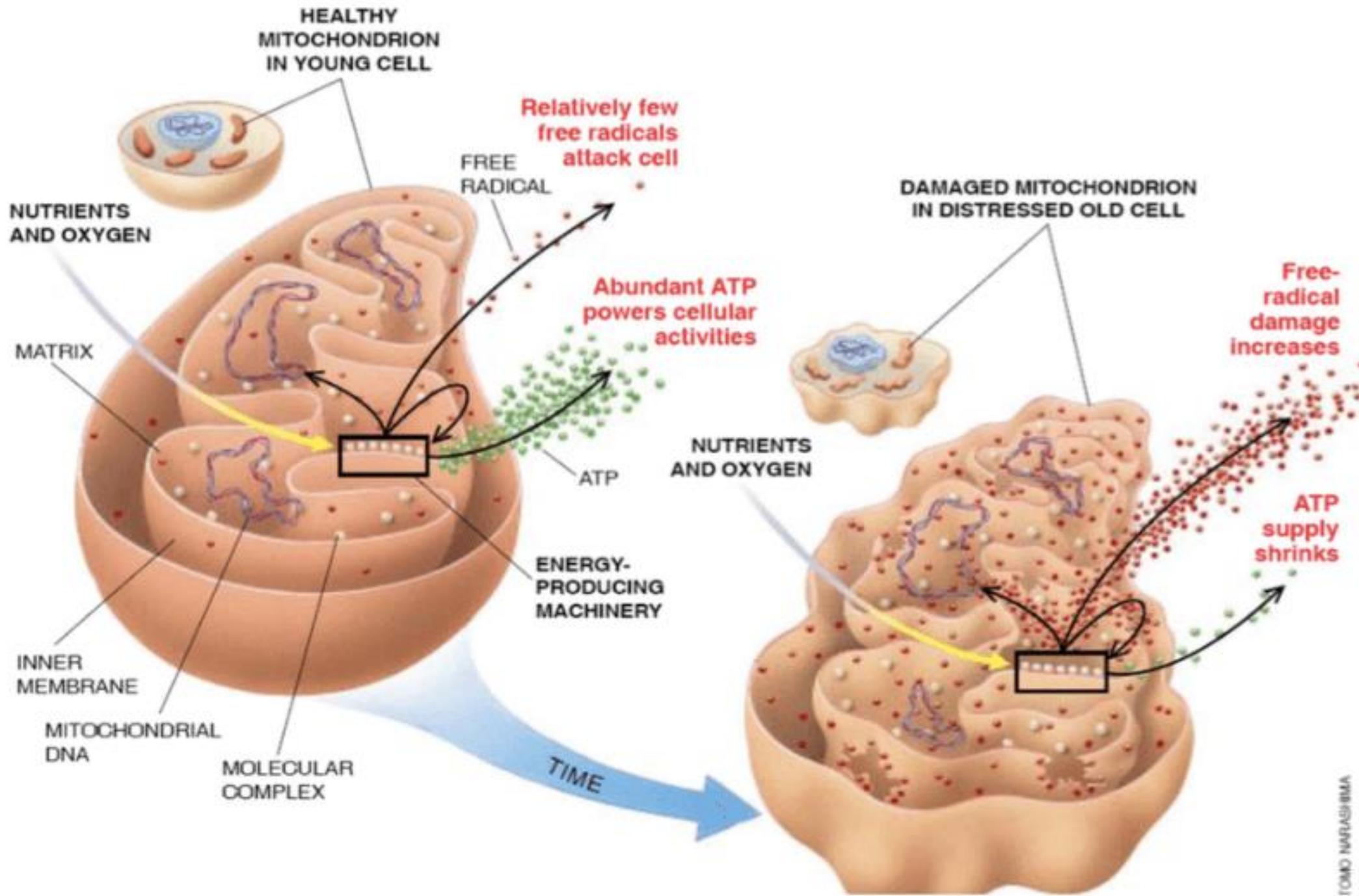
Test measures how fast red blood cells fall to bottom of tube in an hour



Inflammation causes red blood cells to stick together and sink faster

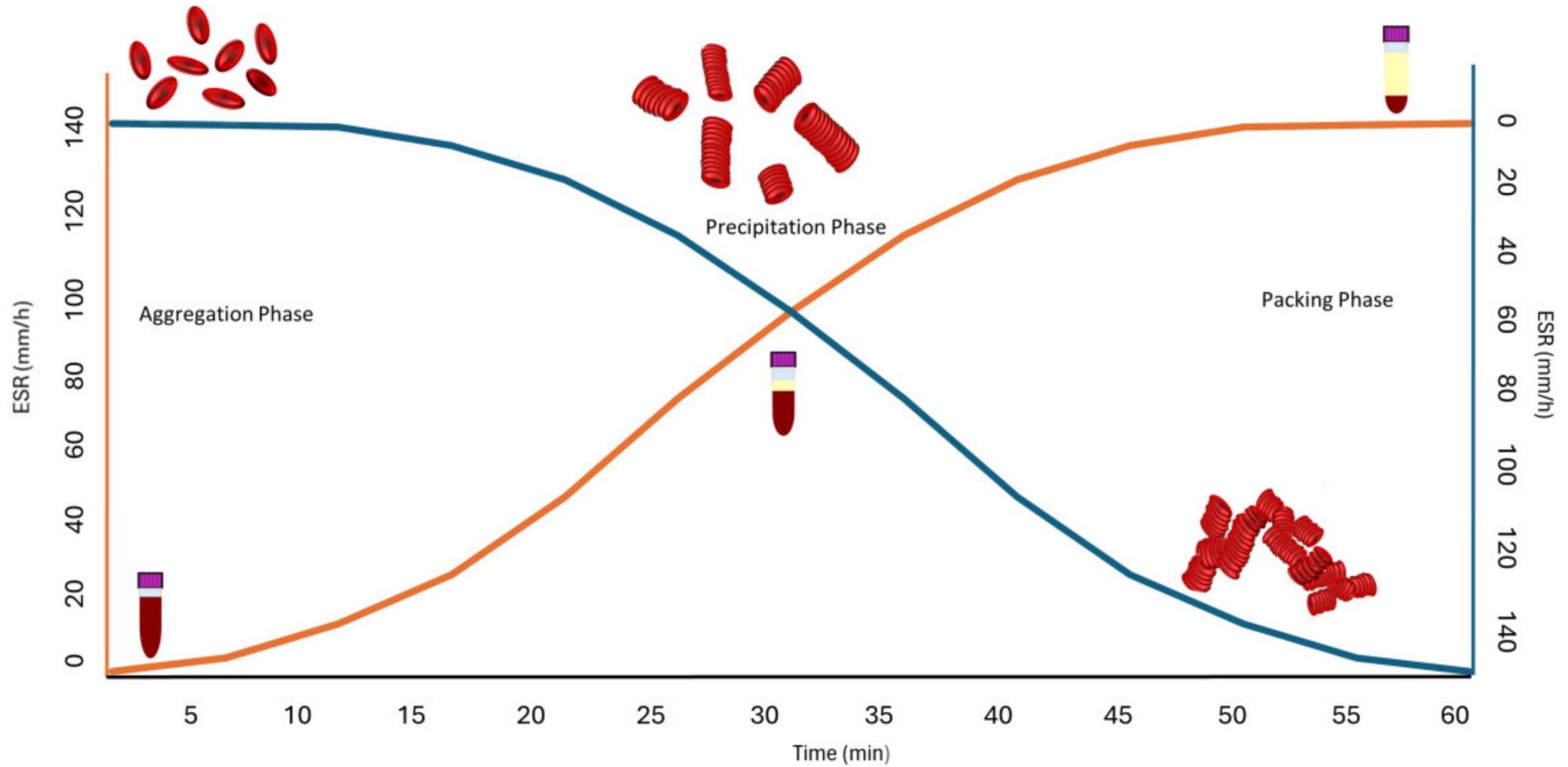


<https://engiomed.ae/esr-test/>



- **The Earth:** The Earth is defined as having 0 volts although the Earth's surface is actually an immense reservoir of free electrons—effectively more negative than most things around it.
- **The Human Body:** Living in shoes, on insulated mattresses, and indoors all day means your body tends to accumulate a slight positive charge. In plain language, you become electron-deficient.
- **When You Connect:** As soon as your bare skin touches the ground, electrons naturally flow **from the Earth (more negative, lower potential)** into your body (**more positive, higher potential**). They keep flowing until your body's charge equalizes with the Earth's.

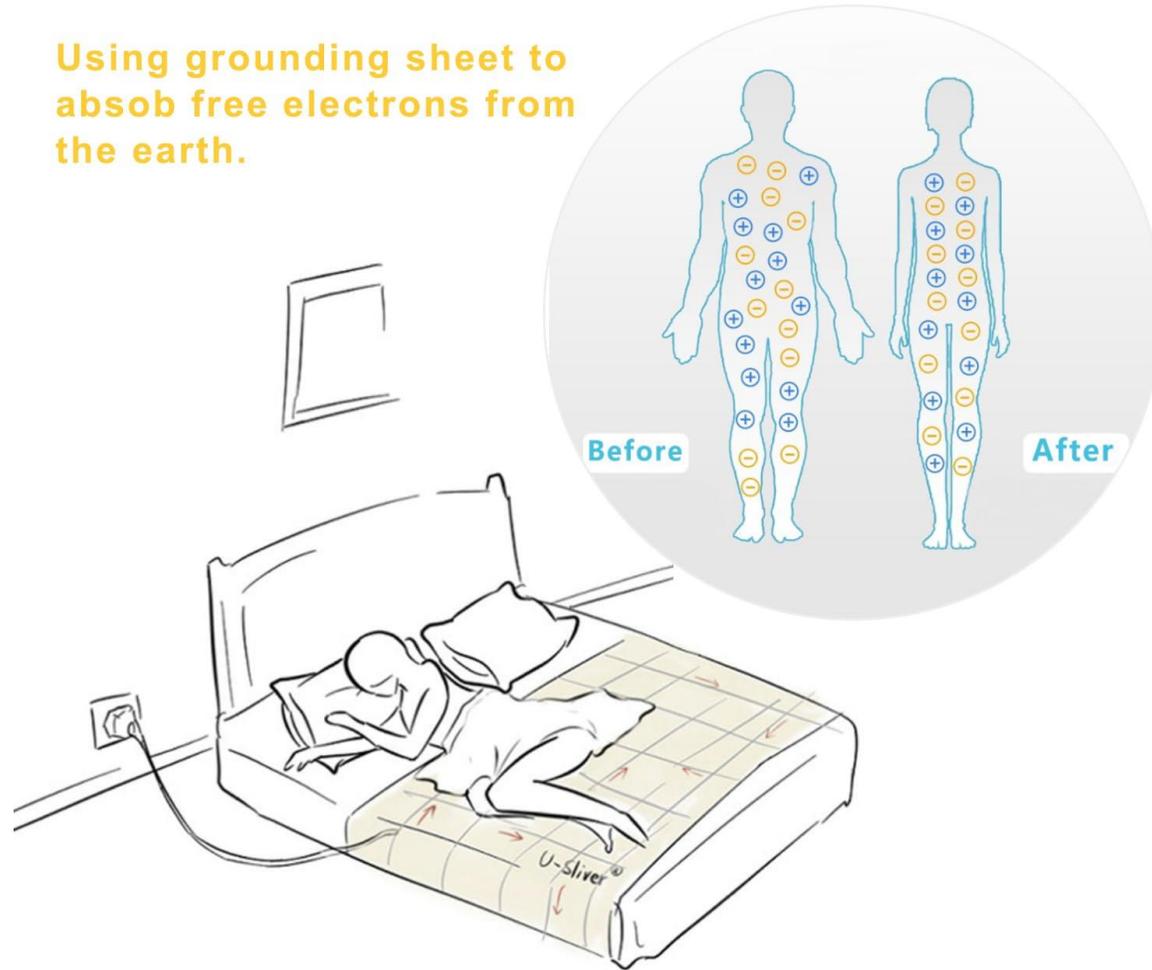
# Sedimentation stages



Here's the important part: **electrons always flow from lower electric potential (more negative) to higher electric potential (more positive)**. If that sounds abstract, just remember this:

- Electrons, being negative, are always drawn toward the positive.

Using grounding sheet to  
absorb free electrons from  
the earth.



# GROUNDING AND SLEEP

