



*Option: 3 pharmaceutical chemistry*

**Exposed on**



**Presented by:**  
**Dridi hanane**

**Under the direction of:**  
**Abdlehek Meklid**

**Promotion (2024)**

# Introduction to Zinc

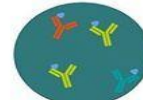
Zinc is an essential mineral that plays a crucial role in various bodily functions.

It is important for immune function, wound healing, DNA synthesis, and cell division.

Adequate zinc intake is necessary for overall health and well-being.

## The importance of zinc Zn

Zinc is trace element (micro-mineral), which means we only need small amounts. Nevertheless zinc has a number of roles in our body.



Required for normal immune function



Required for normal cognitive function



Required for maintaining bone health



Required for the maintenance of normal vision



Required for the synthesis of DNA & protects DNA from oxidation damage



Required for fertility & reproduction in males & females

### Sources of zinc per 100 g



Beef  
12.3 mg (82% DV)



Pumpkin seeds  
10.3 mg (69% DV)



Cocoa  
6.8 mg (45% DV)



Cashews  
5.6 mg (37% DV)

# Dietary Sources of Zinc

Zinc can be found in a variety of foods such as red meat, poultry, seafood, and dairy products.

Plant-based sources of zinc include legumes, nuts, seeds, and whole grains.

It is important to include a variety of zinc-rich foods in your diet to meet daily requirements.



# Zinc Deficiency

A deficiency in zinc can lead to impaired immune function, delayed wound healing, and growth retardation.

Symptoms of zinc deficiency may include loss of appetite, hair loss, and impaired sense of taste or smell.

Individuals at risk of zinc deficiency include pregnant and lactating women, vegetarians, and those with certain health conditions.

## SYMPTOMS OF ZINC DEFICIENCY

- Poor wound healing
- Impaired taste and smell
- Thin, brittle, peeling, or white-spotted nails
- Allergies
- A weakened immune system
- Frequent colds and respiratory infections
- Hair loss
- Eczema
- Skin issues (acne, rashes, canker sores, foot fungus)
- Depression
- Impaired vision
- Unexplained weight loss
- Poor appetite
- Increased susceptibility to infections

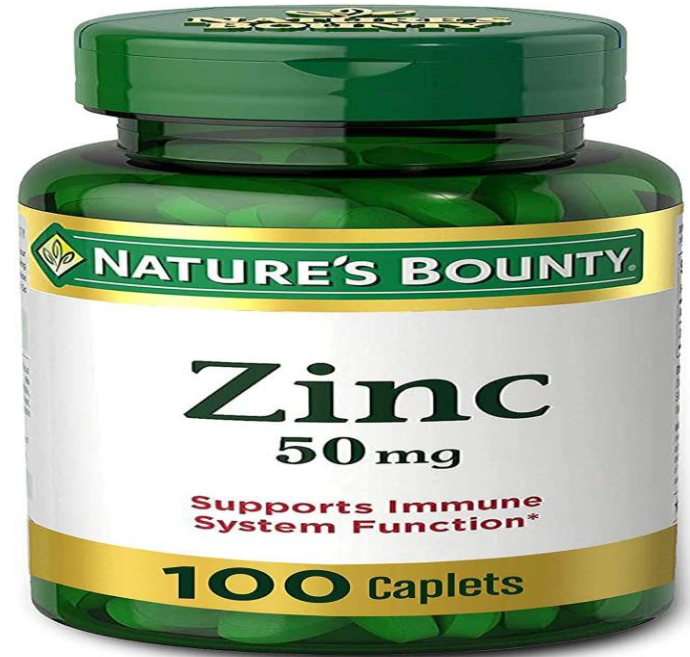


# Zinc Supplementation

Zinc supplements are available in various forms, including zinc gluconate, zinc citrate, and zinc sulfate.

It is important to consult with a healthcare provider before starting zinc supplementation to determine the appropriate dosage.

Excessive zinc intake from supplements can lead to adverse effects such as nausea, vomiting, and copper deficiency.



# Health Benefits of Zinc

Zinc is known for its immune-boosting properties and may help reduce the duration and severity of the common cold.

It plays a role in skin health and may help with acne, eczema, and wound healing.

Zinc is also important for maintaining healthy vision, cognitive function, and fertility.

**HEALTH BENEFITS OF ZINC** Organic Facts

Strengthens bones		Assists in weight loss
Defense against cancer		Improves sense of taste, smell and vision
Heals chronic and fungal infections		Cures pimples, acne and hair loss
Maintains strong brain functioning		Boosts immunity and energy levels

[www.organicfacts.net](http://www.organicfacts.net)

# Zinc in Skin Care

Zinc oxide is a common ingredient in sunscreen and skincare products due to its ability to provide broad-spectrum UV protection.

It has anti-inflammatory properties and may help soothe and heal irritated skin conditions such as acne and eczema.

Zinc can help regulate oil production in the skin and promote a healthy complexion.



Cure & Reduce

- Acne
- Acne Scars
- Oily Skin
- Blemishes / Pimples
- Repair Acne Damaged Skin
- Promote Inner Health & Outer Beauty

*Leaf Roots™*  
PROFESSIONAL  
**ZINC OXIDE**  
CREAM  
Control Acne, Wrinkles & Pimples  
SPF 30 \*\*, ALL SKIN TYPES

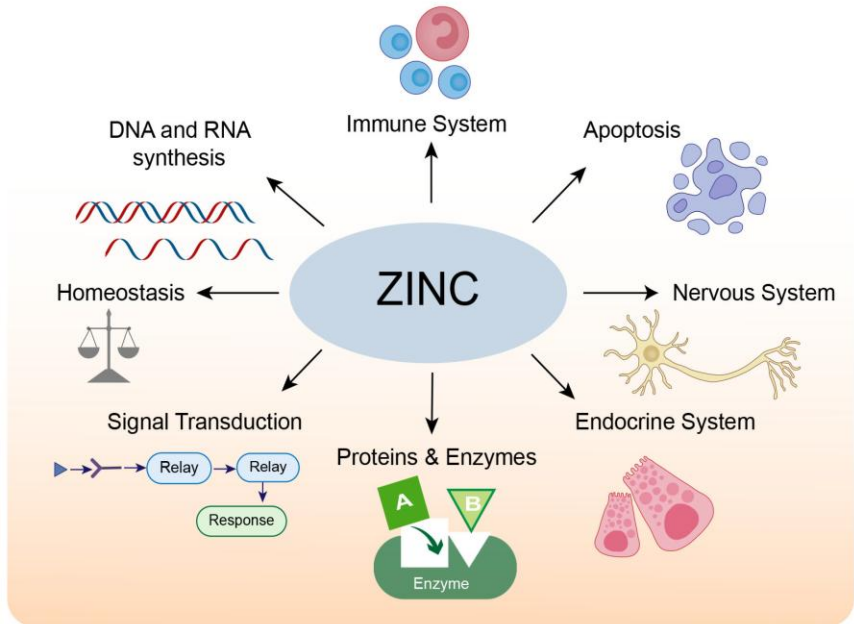
**ZINC OXIDE**  
**CREAM**

# Zinc in Immune Function

Zinc is essential for the development and function of immune cells, including T cells and macrophages.

Adequate zinc intake can help support a healthy immune response and reduce the risk of infections.

Zinc deficiency is associated with increased susceptibility to infections and may impair immune function.



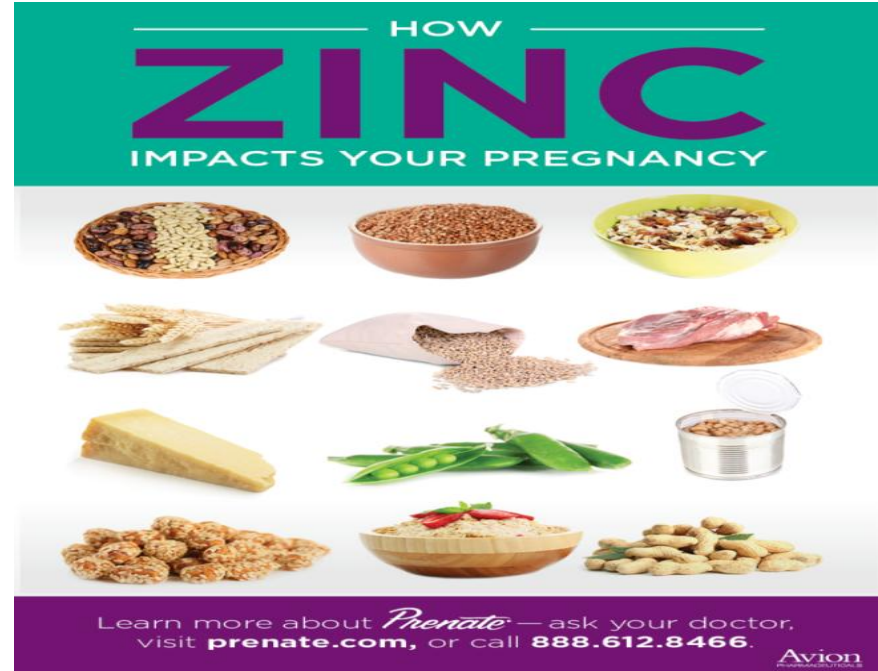


# Zinc in Pregnancy

Zinc plays a critical role in fetal growth and development during pregnancy.

Pregnant women require higher levels of zinc to support the growth of the baby and prevent birth defects.

Adequate zinc intake during pregnancy is essential for maternal and infant health.



HOW  
**ZINC**  
IMPACTS YOUR PREGNANCY

The infographic displays a variety of food sources for zinc, including:

- A plate of mixed nuts and seeds.
- A bowl of lentils.
- A bowl of mixed nuts.
- Crackers.
- A pile of seeds.
- A plate of meat.
- A wedge of cheese.
- Peas in their pods.
- A small metal can of chickpeas.
- A pile of fried nuts.
- A bowl of rice with vegetables.
- A pile of almonds.

Learn more about *Prenate* — ask your doctor, visit [prenate.com](http://prenate.com), or call 888.612.8466.

Avion  
NUTRITION

# Zinc Toxicity

Excessive intake of zinc from supplements or high-dose zinc lozenges can lead to zinc toxicity.

Symptoms of zinc toxicity may include nausea, vomiting, diarrhea, and copper deficiency.

It is important to follow recommended dietary guidelines and consult with a healthcare provider to avoid zinc toxicity.

## Recommended DIETARY ALLOWANCES (RDAs) for ZINC

AGE	MALE	FEMALE	PREGNANCY	LACTATION
0-6 months	2 mg*	2 mg*		
7-12 months	3 mg	3 mg		
1-3 years	3 mg	3 mg		
4-8 years	5 mg	5 mg		
9-13 years	8 mg	8 mg		
14-18 years	11 mg	9 mg	12 mg	13 mg
19+ years	11 mg	8 mg	11 mg	12 mg

Data courtesy of [http://www.nap.edu/openbook.php?record\\_id=10026&page=442](http://www.nap.edu/openbook.php?record_id=10026&page=442)

Dr. Axe  
FOOD IS MEDICINE

# Conclusion

Zinc is an essential mineral with numerous health benefits, including immune support, skin health, and wound healing.

It is important to include zinc-rich foods in your diet to meet daily requirements and prevent deficiency.

Consult with a healthcare provider before starting zinc supplementation to ensure safe and appropriate usage.

**8 HEALTH BENEFITS OF ZINC**

- HELPS BUILD IMMUNITY**  
It decreases oxidative stress and has an inhibitory effect on viruses, improving your immunity. 
- MAY HELP FIGHT CANCER**  
It has an anti-defense mechanism that helps it control the cell proliferation process. 
- HELPS MANAGE DIABETES**  
Zinc can control proteins from forming clumps in the body, preventing diabetes and other ailments. 
- HELPS PROTECT THE HEART**  
It strengthens the heart and helps deal with oxidative stress and other issues. 
- HELPS LOSE WEIGHT**  
Zinc has a significant effect on energy metabolism and helps fuel the body's processes. 
- STRENGTHENS THE BONES**  
It helps reduce and prevent bone loss. Zinc supplementation can even treat osteoporosis. 
- HELPS DURING PREGNANCY**  
Zinc supplementation during pregnancy may reduce the risk of diarrhea, dysentery, and melasma. 
- HELPS RELIEVE PMS SYMPTOMS**  
It improves blood flow to the uterus and reduces inflammation, relieving pains and cramps related to PMS. 

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