

# Excitotoxins

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Some additives in food can trigger the same biochemical response in the brain as a mild concussion.

They act as neurotransmitters, and in too high amounts they over stimulate the brain.

That is why they are named: **EXITOTOXINS**

# Excitotoxins

## Food additives:

Mono Sodium Glutamate

MSG

Aspartame =

Aspartate + Methanol

## Neurotransmitters:

Glutamate

Aspartate



Concussion is a biochemical reaction.

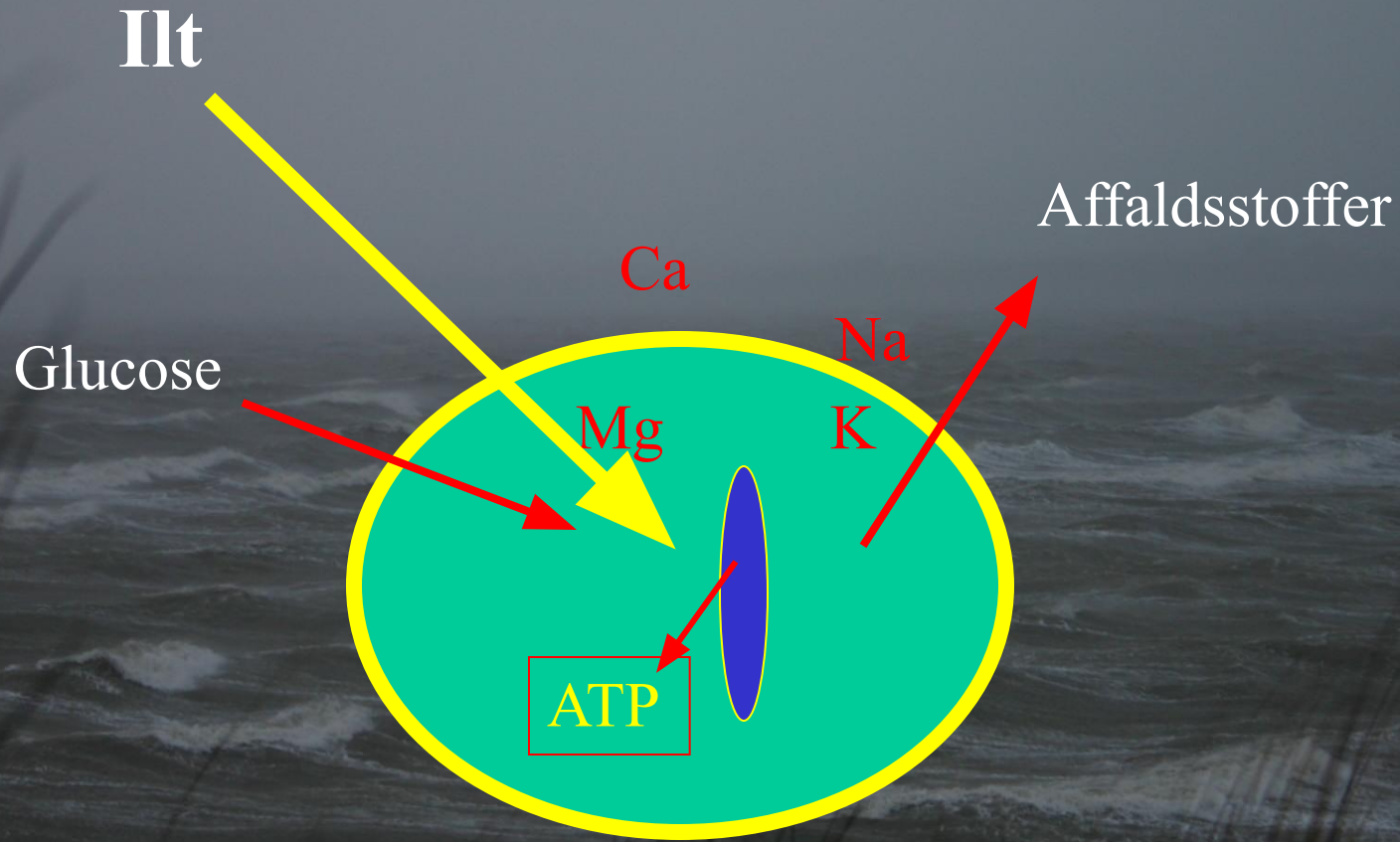
**Immediate response:**

Calcium flows into neurons.

Potassium leaks out of neurons.

Neurons release large amounts of Glutamate.

# Cell metabolism



Concussion is a biochemical reaction.

**Several hours:**

The biochemical imbalance affects the neurons energy production.

Restoring the biochemical balance requires a lot of energy.



Concussion is a biochemical reaction.

Several weeks:

Free radicals and inflammations.

# Biochemical First Aid

## Avoid Excitotoxins:

- MSG
- Aspartame

## Take supplements:

- Magnesium
- Vitamin B complex
- Vitamin C
- Vitamin E
- Anti inflammatory diet.





Thank you!

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