



TYPE USED: N ACETYL CYSTEINE

N Acetyl Cysteine, also known as **NAC**, an amino acid of the sufhydral group, is a precursor of cysteine and reduced glutathione which **enhances the production of Glutathione**, a potent anti oxidant.

NAC and Liver clearance:

- Well studied for protecting liver damage from paracetamol (Tylenol) overdose, carbon monoxide poisoning, carbon tetrachloride.
- Reduces heavy metal overload: Arsenic, lead, cadmium, mercury, copper excess
- Estrogen clearance; NAC **removes excess estrogen** metabolites (E2) by moving through methoxylation and conjugation pathways

NAC and Mental Health:

- Studies are ongoing using NAC for Bi Polar disorders and are showing positive results
- Used for **Traumatic Brain Injury** with improvements in memory loss, sleep deprivation due to trauma and helps control dizziness
- Some chemotherapy treatments reduce **cognitive function**; supplementing with NAC and Lysine during chemotherapy helps prevent this decline
- Help with addictions. NAC normalizes glutamate in the reward centre of the brain through cysteine-glutamate exchanges thereby increasing glutamate clearance. This results in decreased cravings and addictive behavior.
- Alzheimer's and Parkinson's disease: NAC helps protect neurons from damage and degeneration

NAC and Helicobacter Pylori:

- Inhibits growth of Helicobacter Pylori
- Decreases inflammatory cytokines in the gut

