

# Alkoholmetabolizmus

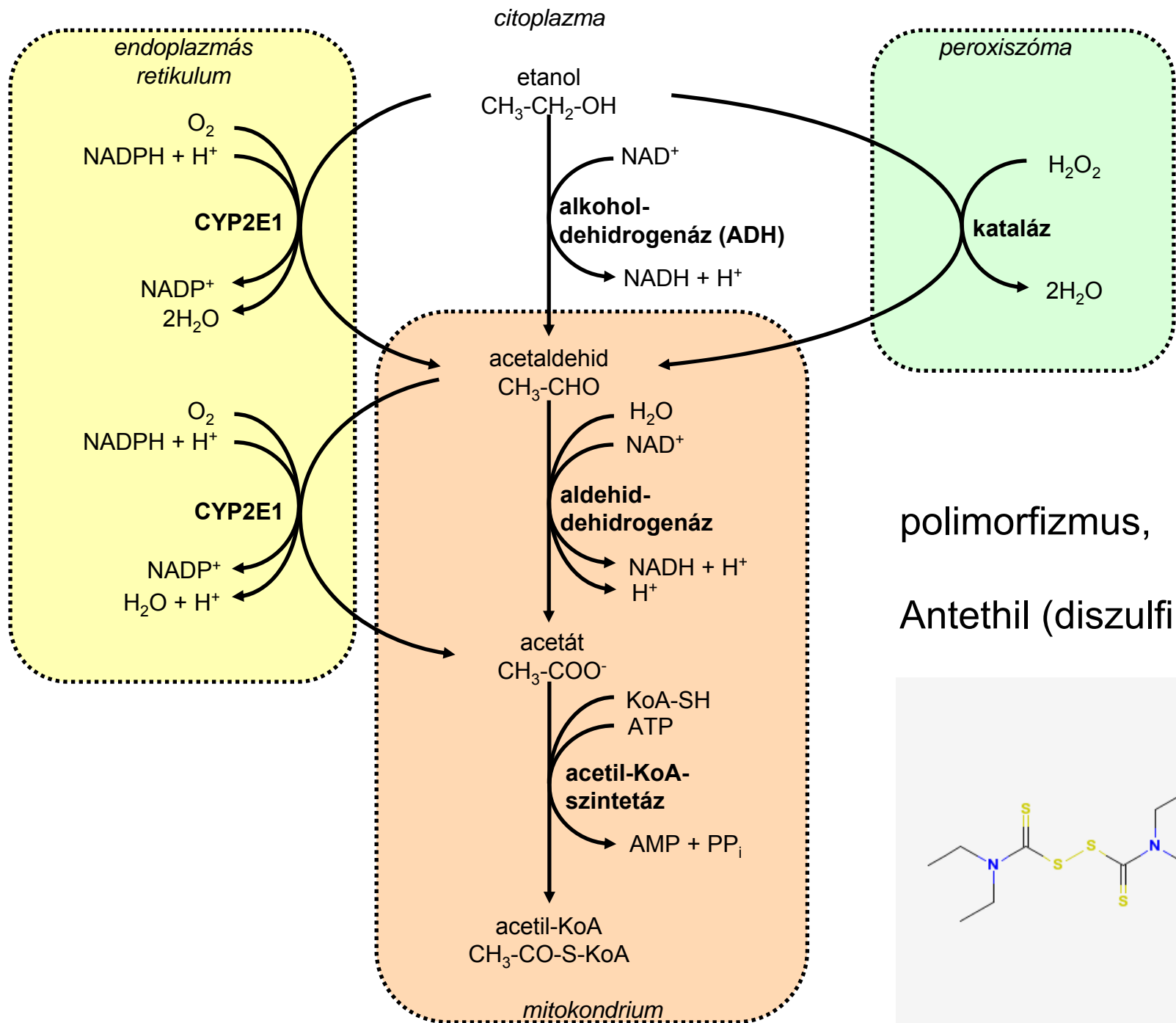
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Semmelweis Egyetem

Orvosi Vegytani, Molekuláris Biológiai és Patobiokémiai  
Intézet

# LD<sub>50</sub> Comparison

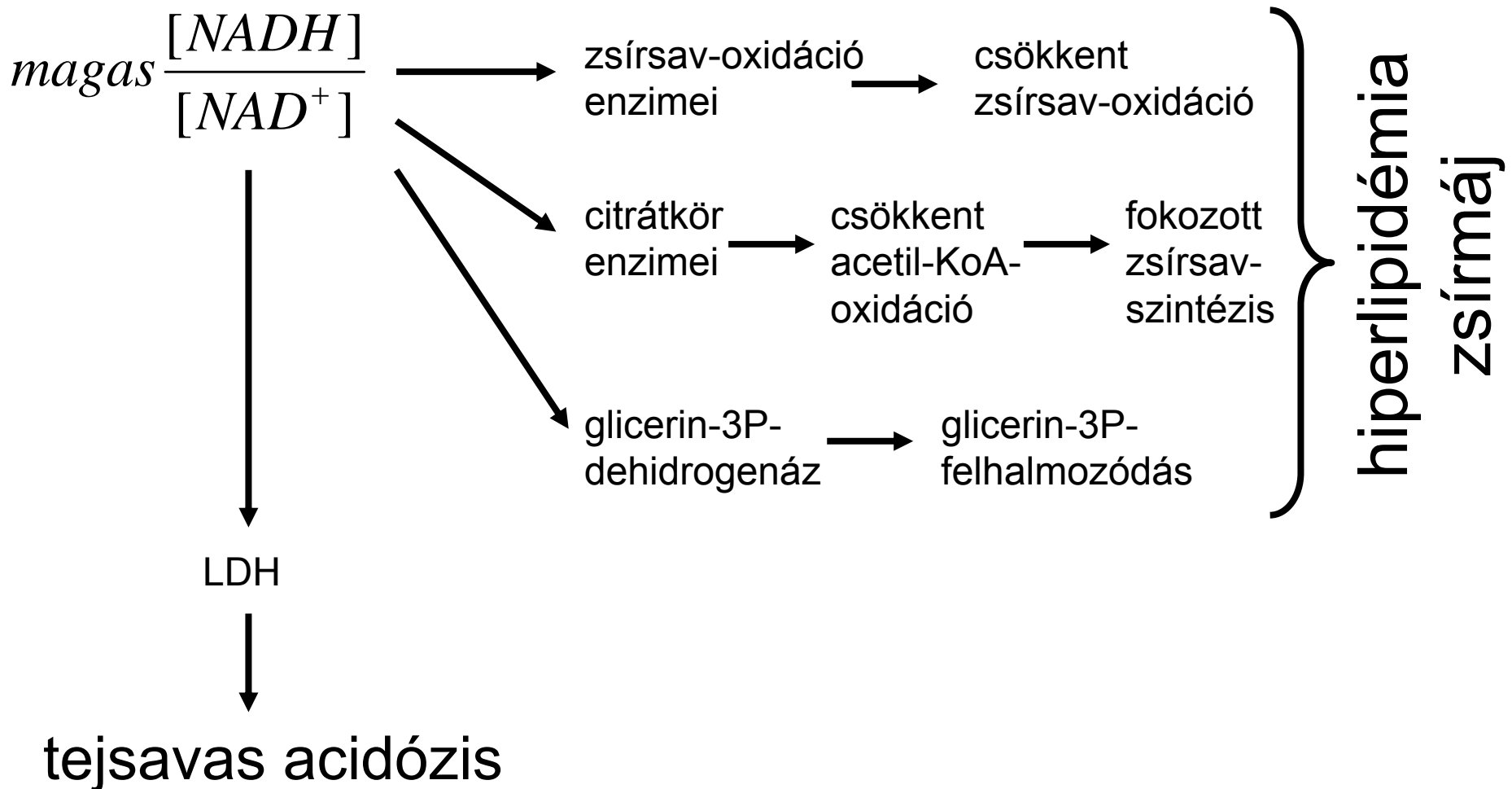
Chemical	LD <sub>50</sub> (mg/kg)
Ethyl Alcohol	10,000
Sodium Chloride	4,000
Ferrous Sulfate	1,500
Morphine Sulfate	900
Strychnine Sulfate	150
Nicotine	1
Black Widow	0.55
Curare	0.50
Rattle Snake	0.24
Dioxin (TCDD)	0.001
Botulinum toxin	0.0001



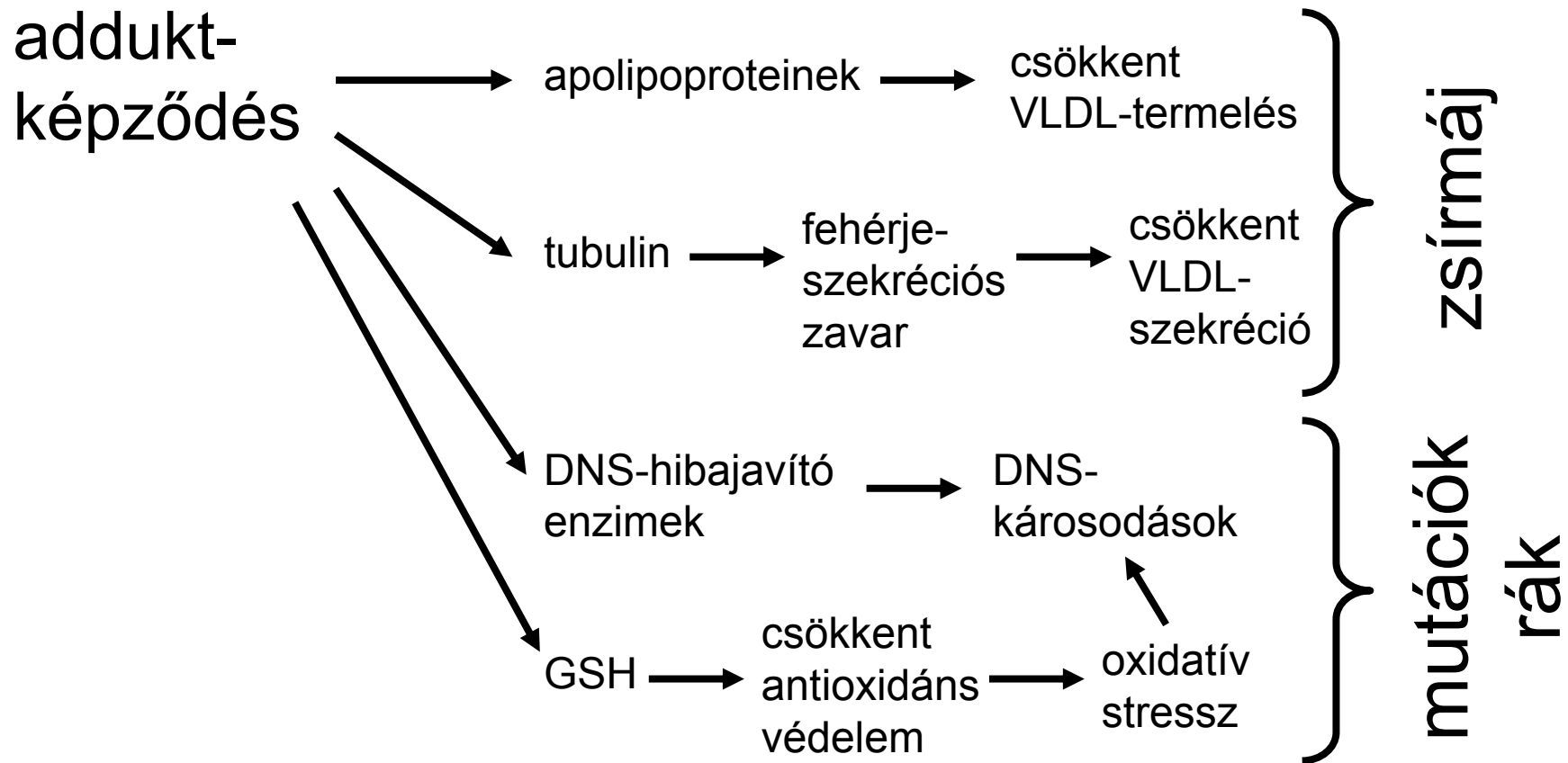
polimorfizmus,  
Antethyl (diszulfiram)



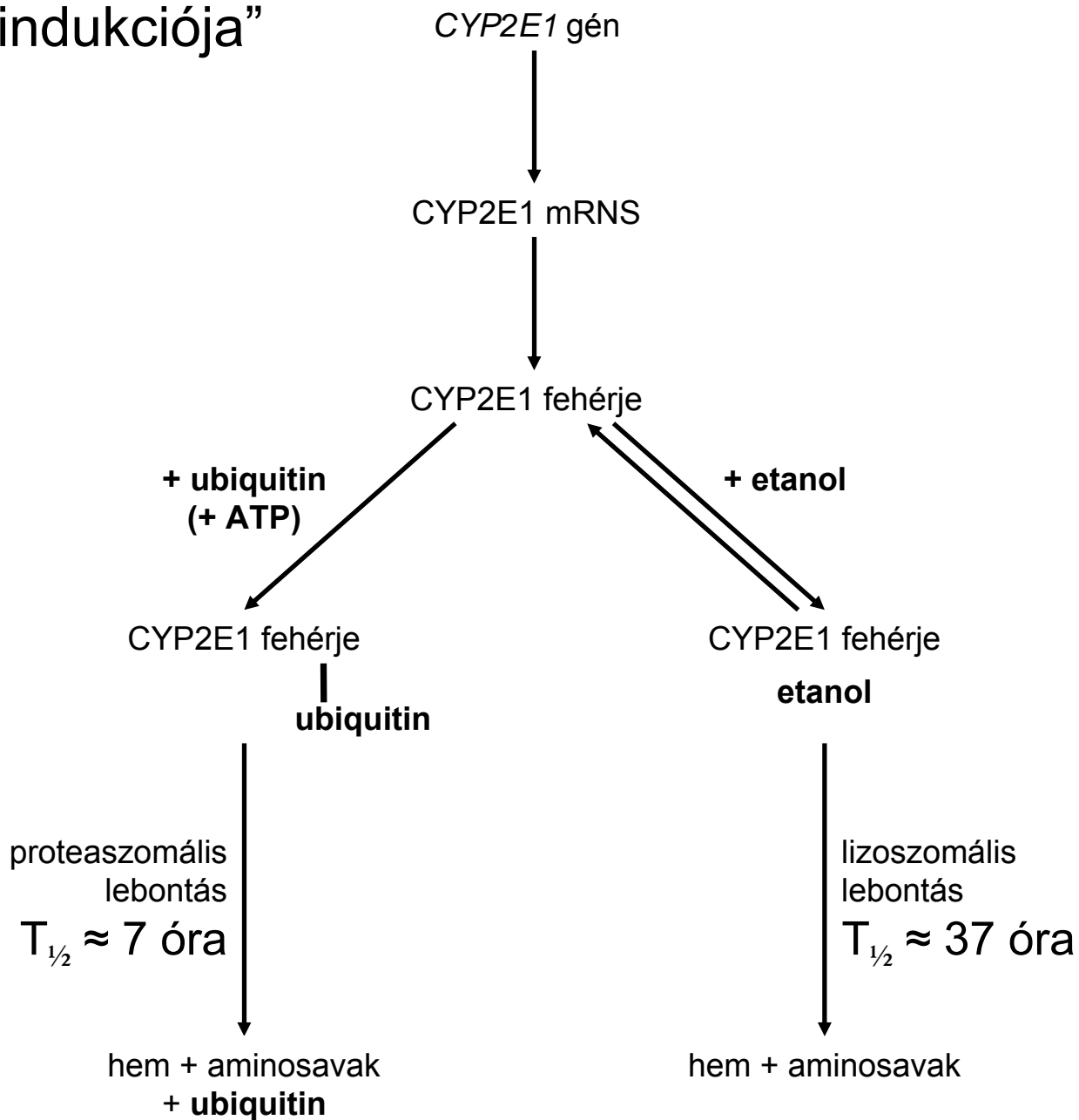
# Az acetil-KoA-túlkínálat és a „redox shift” következményei



# Az acetaldehidémia következményei



# CYP2E1 „indukciója”



# A CYP2E1 indukciójának következményei

- hipoxia
- oxidatív stressz
- mérgező intermedierek felhalmozódása
- a gyógyszer/hormon-metabolizmus megváltozása

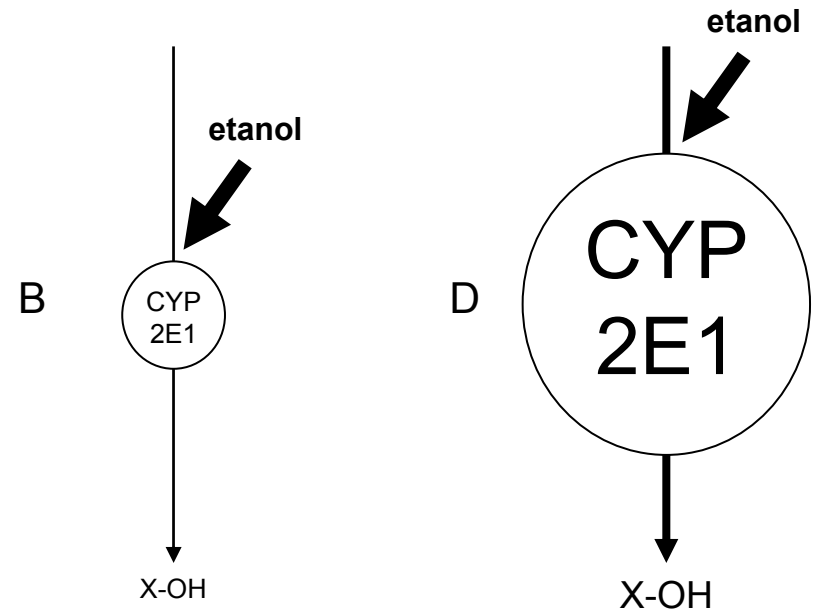
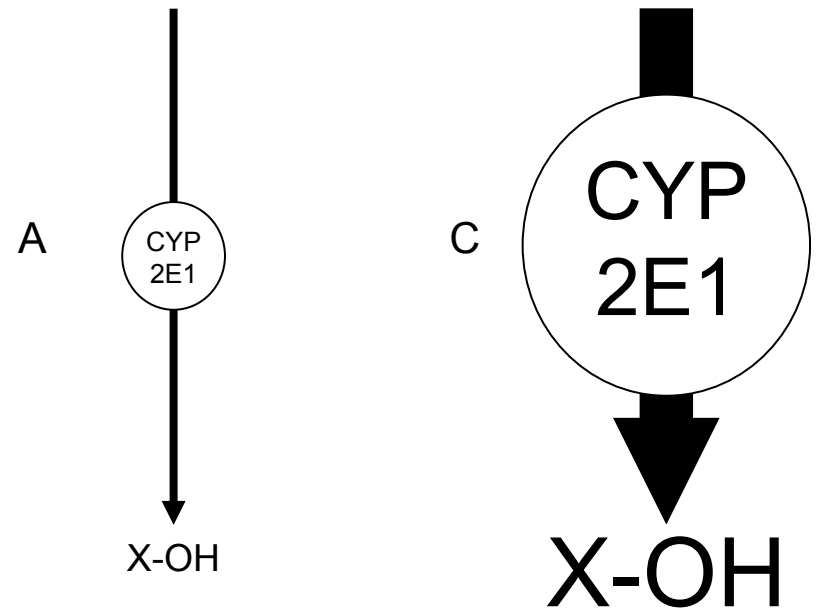
# Az etanol megzavarja a gyógyszer-metabolizmust

A: nem iszákos és most sem ivott

B: nem iszákos, de most ivott

C: iszákos, de most nem ivott

D: iszákos és most is ivott





# The New York Times

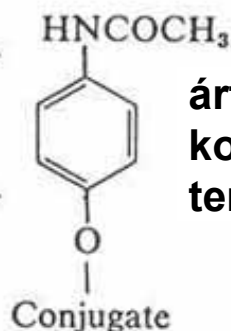
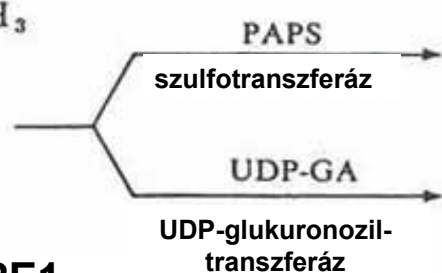
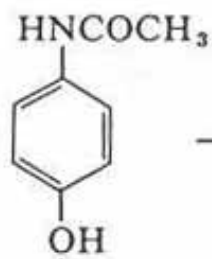
## Warnings Proposed for Over-the-Counter Drugs

Published: December 20, 2006

More than 200 million Americans a year take products like Tylenol with acetaminophen, and overdoses cause up to 450 deaths a year from acute liver failure.

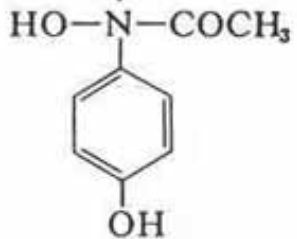
In addition to deaths associated with liver failure, acetaminophen is the leading cause of calls to poison control centers and is responsible for an estimated 56,000 emergency room visits and 2,600 hospitalizations every year.

acetaminofen



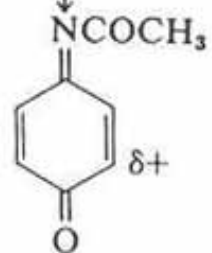
ártalmatlan  
konjugált  
termékek

NADPH  
O<sub>2</sub>  
**CYP2E1  
(1A2, 3A4)**



toxikus  
intermedierek

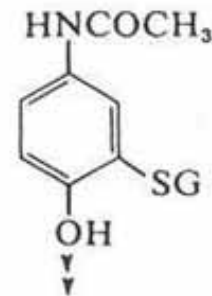
NAPQI  
(N-acetyl-  
p-benzoquinone  
imine)



GSH



sejt-  
makromolekula



ártalmatlan Cys / mercaptursav konjugátumok

Az acetaminofen  
hepatotoxicitása

ROS-termelődés  
oxidatív stressz

<http://markmyprofessor.com/tanar/adatlap/21777.html>