

Alcohol and Health

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Ref: Grant Ch4,

Alcohol-Induced Liver Damage

- Risk becomes significant when alcohol consumption exceeds
 - ◆ 6.2oz/day for men
 - ◆ 1.55oz/day for women
- Caused by
 - ◆ Free radical rx in fatty liver
 - ◆ Cytokine stimulated differentiation of Ito cells into collagen myofibroblasts
 - ◆ Increased levels of Acetaldehyde due to lower levels of Aldehyde dehydrogenase

Alcohol-Induced Immune System Impairment

- Suppresses proliferation of lymphocytes in blood, spleen, and thymus
- Reduced B cell antibody production
- Natural Killer (NK) cells have reduced activity

Alcohol-Induced Changes in the Cardiovascular System

- Reduced risk of CAD with ≤ 2 drinks/day
 - ◆ increased HDL, inhibition of platelet activity
- Reduction in Cerebral Vascular Disease (Stroke)
 - ◆ reduced platelet activity
- 50% greater risk of hypertension with 3-4 drinks/day
- Cardiomyopathy (weakened heart muscle)
 - ◆ impaired protein metabolism, free radicals
- Arrhythmias caused by alcohol effect on sinoatrial node