

# THE HEART POSITIVE STUDY

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# Why We Did this Study

HIV patients on ART have a high risk of developing:

- Lipid disorders
- Diabetes (2 X more than general population)
- Changes in body fat arrangement
- Heart attacks and stroke (1.5 to 2 X)

What is the reason?

- ART drugs?
- HIV itself?
- Immune reactions?

How to decrease the heart disease risk?

- ART drugs and standard lipid drugs decrease effectiveness of one another

# What We Did

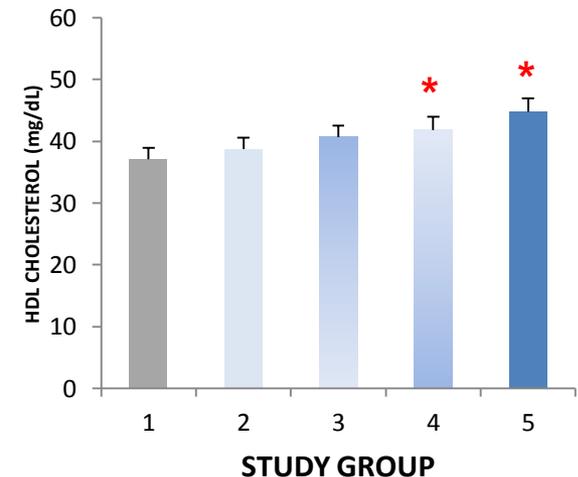
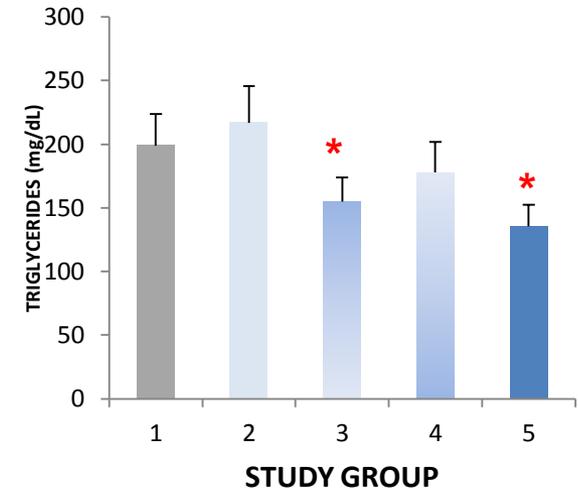
First, determined the key defects: too much fatty acid released from fat tissues; poor “burning” of the released fatty acids.

Then: Heart Positive Study

- Randomized, placebo-controlled, double-blind trial
- Compared stepwise treatments to:
  - a) block fatty acid release
  - b) burn the released fat
- Diet, exercise, niacin, fenofibrate
- 196 patients with high triglycerides, treated for 6 months.
- Thomas Street Clinic and Legacy

# What We Found

- 1) All lipids improved with the combined (diet + exercise + niacin + fenofibrate) therapy (Group 5) – especially triglycerides and HDL
- 2) Over 60% of Group 5 normalized triglycerides, HDL and “non-HDL” cholesterol.
- 3) No change in glucose or insulin levels
- 4) Increase in muscle mass, fitness
- 5) Increase in fat burning capacity
- 6) Higher rates of liver function abnormalities in Group 5.
- 7) No change in HIV parameters
- 8) High drop-out rate



# What Our Results Mean and Why this Matters

- 1) It is possible to decrease a major risk factor for heart disease in HIV patients without changing ART or making HIV infection worse.
- 2) But, it takes a multi-factorial approach: lifestyle plus two drugs
- 3) The treatment is generally safe
- 4) The lifestyle component is very important, but it is hard for the patients to comply with regular diet and exercise
- 5) We have to do similar studies to find the best ways to treat other components of the heart disease risk

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