



## Mayo Clinic Heritage Films Discussion Guide

### Reaching New Heights: Secret Stories of the Mayo Clinic Aero Medical Unit



During World War II, the men and women of the Mayo Aero Medical Unit worked on top secret medical research, dedicating themselves to protecting American pilots from the deadly effects of “oxygen want” and g-forces.

Doctors and technicians volunteered to be strapped into the laboratory’s human centrifuge and hypobaric chamber to study the effects on the human body of flying at fast speeds and high altitudes. The team used that knowledge to create innovative tools that gave American pilots a decisive advantage in the war and had a lasting impact on aviation and medicine.

#### Discussion Questions

1. Have you ever experienced the effects of g-forces or the “thin air” of high altitudes? How do you imagine it would impact a fighter pilot?
2. The group that developed the G-suit and oxygen mask included a surgeon, a physicist, a prosthetist, a weaver, an electrical engineer, and other technical experts. What are the challenges of managing a team of specialists from different disciplines?

3. It was courageous of the aero medical team to subject themselves to dangerous stress, but it raises an ethical question: should scientists be allowed to volunteer as subjects for their own research?
4. Do you think it's appropriate for medical researchers to develop tools to be used in warfare?
5. The aero medical team had to do their research at a greatly accelerated pace. What are the advantages and disadvantages of that?
6. The aero medical team was working to address physical issues that occurred because planes were flying higher and faster than ever before. Can you think of other medical problems caused by technological advances today?
7. If you could recruit a multi-disciplinary team from the experts at Mayo Clinic, what issue would you have them work on?