



CRC

for

Premium

Quality

Wool

# The Effect of Insulin on Follicles

Produced for the CRC for Premium Quality Wool undergraduate program by;  
Dr. Peter Wynn, The University of Sydney.



# Insulin

- **Rapid (seconds)**
  - Increase transport of glucose, amino acids and  $K^+$  into insulin sensitive cells
- **Intermediate (minutes)**
  - Stimulation of protein synthesis, glycogen synthase and glycolytic enzymes
  - Inhibition of protein degradation, phosphorylase and gluconeogenic enzymes
- **Delayed (hours)**
  - Increase in mRNA for lipogenic and other enzymes, c-fos

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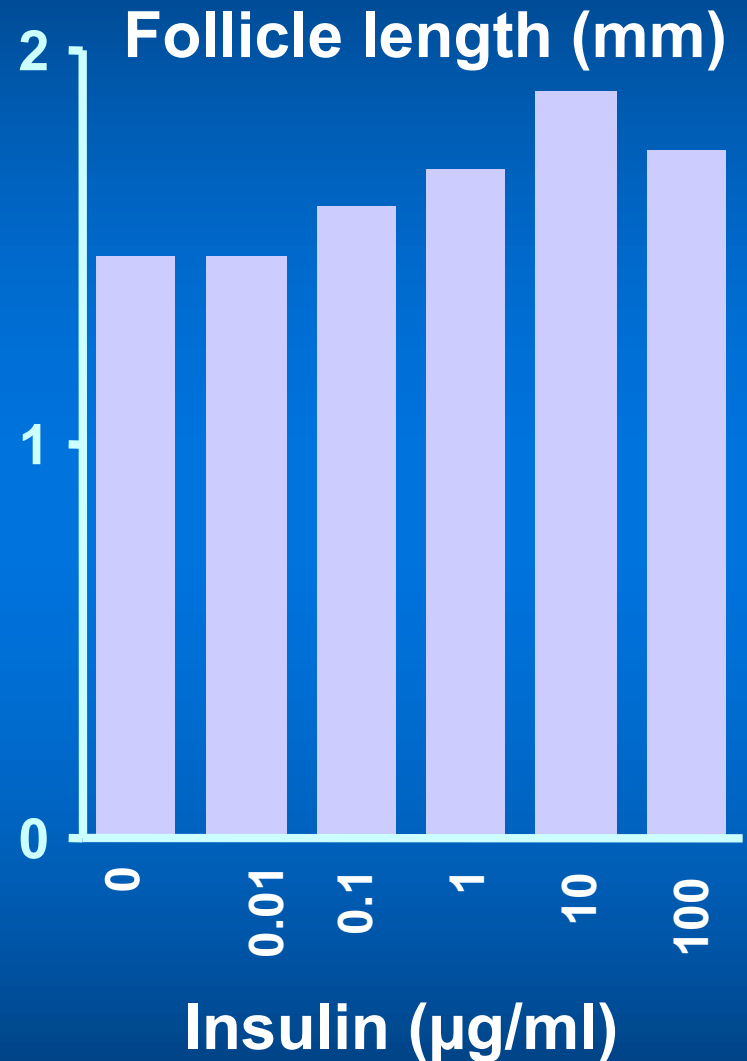
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# Insulin

- *In vitro*
  - telogen onset if insulin omitted from the media
  - needed to maintain anabolic activity of the follicle
- Local injection has no effect



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