

\* Most recent common ancestor b/w humans/apes: 5-10mya

Human Evolution

- \* Trends in the Human Fossils
- facial anatomy
  - Teeth
  - torso
  - fire
  - tools
  - height
  - brain

Salt Lake Springs t. 6-7 mya  
Skull; One hominin? Prolegarite?  
Orrorin t. Laya teeth, femur; bipedal?  
mya = millions of years ago

<p><b>Ardipithecus ramidus</b></p> <ul style="list-style-type: none"> <li>• Few fossil remains found so description uncertain;</li> <li>• Ape-like dentition but transitional between apes and Australopithecines;</li> <li>• Tooth enamel very thin compared to hominids;</li> <li>• Hominid type canines – low and blunt;</li> <li>• Incisors larger than hominids but smaller than chimpanzees;</li> <li>• more centrally positioned foramen magnum indicating a trend towards bipedalism. (See box on previous page).</li> </ul>	<p>4.4 – 4.3mya; [4-5mya] Height possibly slightly smaller than afarensis; East Africa.</p>
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<p><b>Australopithecus afarensis</b></p> <ul style="list-style-type: none"> <li>• ape-like face;</li> <li>• flat nose;</li> <li>• no chin;</li> <li>• protruding jaws;</li> <li>• canines smaller than modern apes;</li> <li>• large molars;</li> <li>• males much larger than females.</li> </ul> <p>CC: "Lucy" Common ancestor to Australo. line and Homo line</p>	<p>3.9 – 2.5mya; [2.5-4mya] height 1.07 – 1.52m; brain size 375 – 550cm<sup>3</sup>; East Africa.</p>
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<p><b>Australopithecus africanus</b></p> <ul style="list-style-type: none"> <li>• flatter face;</li> <li>• smaller canines;</li> <li>• larger molars.</li> </ul>	<p>3.0 – 2.3mya; height 1.1 – 1.4m; brain size 420 – 500cm<sup>3</sup>; Southern Africa.</p>
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<p><b>Homo habilis</b></p> <ul style="list-style-type: none"> <li>• smaller teeth and jaws;</li> <li>• this indicates more meat in the diet; = hunted</li> <li>• first to adapt and use stone tools;</li> <li>• hips form a distinct pelvic bowl;</li> <li>• near to modern humans in size;</li> <li>• males and females similar size.</li> </ul>	<p>2.4 – 1.6mya; [1.5 → 2.5 mya] height 1.0 – 1.5m; brain size 500 – 800cm<sup>3</sup>; Eastern / Southern Africa.</p>
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<p><b>Homo erectus</b></p> <ul style="list-style-type: none"> <li>• meat formed a significant part of their diet;</li> <li>• rib-cage barrel-shaped;</li> <li>• sophisticated stone-tool makers; ↓ bodyhair (cooling)</li> <li>• probably used fire.</li> </ul>	<p>1.8 – 0.3mya; height 1.3 – 1.5m; brain size 750 – 1225cm<sup>3</sup>; Africa, Indonesia, Asia. (A. migration)</p>
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<p><b>Homo neanderthalensis</b></p> <ul style="list-style-type: none"> <li>• large-brained;</li> <li>• heavy-boned;</li> <li>• large teeth and jaw muscles;</li> <li>• brow-ridge above the eye sockets was nearly as prominent as in <i>H. erectus</i>;</li> <li>• limbs were relatively short with respect to the torso (indicating an adaptation to the cold).</li> </ul> <p>• burials</p>	<p>150,000 – 30,000 years ago; height 1.5 – 1.7m; brain size 1200 – 1625cm<sup>3</sup>; Europe, western Asia.</p>
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<p><b>Homo sapiens sapiens</b></p> <ul style="list-style-type: none"> <li>• large brain;</li> <li>• face flat rather than projecting;</li> <li>• molars and canines reduced in size;</li> <li>• brow-ridge reduced;</li> <li>• lower jaw is reinforced on the outside producing a chin – this is absent from other hominids;</li> <li>• general trend towards smaller molars and reduced</li> </ul>	<p>130,000 years ago to present; height 1.6 – 1.8m; brain size 1200 – 1500cm<sup>3</sup>; Africa and western Asia.</p>
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• Cultural Evolution: