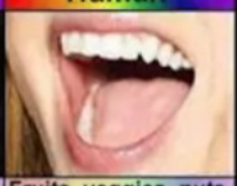
COMPARATIVE ANATOMY

Dietary Class:	Carnivore	Omnivore	Herbivore	Frugivore	Human
X Anatomy:					
Optimal Diet:	Meat	Meat and plants	Leafy plants and grasses	Fruits, veggies, nuts legumes and seeds	Fruits, veggies, nuts, legumes and seeds
Vision (mammals):	Does not see in full color-scale	Does not see in full color-scale	Sees in full color-scale	Sees in full color-scale	Sees in full color-scale
Brain Chemistry:	Fueled by fats and proteins	Fueled by fats and proteins	Fueled by glycogen	Fueled by glycogen	Fueled by glycogen
Circadian Rhythm (mammals):	Sleep 18-20 hours per 24-hour cycle	Sleep 18-20 hours per 24-hour cycle	Sleep 8 hours or less per 24-hour cycle	Sleep 8 hours or less per 24-hour cycle	Sleep 8 hours or less per 24-hour cycle
Mouth Opening Vs. Head Size:	Large	Large	Small	Small to medium	Small
Jaw Type:	Lower jaw embedded inside of upper jaw	Lower jaw embedded inside of upper jaw	Upper jaw sits on the bottom jaw	Upper jaw sits on the bottom jaw	Upper jaw sits on the bottom jaw
Jaw Angle:	Not expanded	Not expanded	Expanded	Expanded	Expanded
Jaw Joint Location:	On the same plane as the molar teeth	On the same plane as the molar teeth	Above the plane of the molar teeth	Above the plane of the molar teeth	Above the plane of the molar teeth
Jaw Motion And Mastication:	Shears meat and swallows; no lateral or forward mobility for chewing	Shearing & crushing; minimal to no lateral or forward mobility for chewing	Great lateral and forward mobility for chewing leafy green plants and grasses	Great lateral and forward mobility for chewing fruit, seeds, nuts and vegetation	Great lateral and forward mobility for chewing fruit, seeds, nuts and vegetables
Neccesity Of Chewing Food:	None; swallows food whole	Swallows food whole &/or simple crushing	Extensive chewing neccesary	Extensive chewing neccesary	Extensive chewing neccesary
Facial Muscles:	Reduced to allow wide mouth gape	Reduced to allow wide mouth gape	Well-developed to facilitate chewing	Well-developed to facilitate chewing	Well-developed to facilitate chewing
Major Jaw Muscles:	Temporalis	Temporalis	Masseter and Pterygoids	Masseter and Pterygoids	Masseter and Pterygoids
Teeth (canines):	Long, sharp, curved fangs	Long, sharp, curved fangs	Rudimentary, dull and short or none	Dull and short or long (for defense)	Rudimentary, short and blunted
Teeth (incisors):	Short and pointed	Short and pointed	Broad, flattened and spade-shaped	Broad, flattened and spade-shaped	Broad, flattened and spade-shaped
Teeth (molars):	Sharp, jagged and blade-shaped	Sharp blades and/or flattened	Flattened with cusps vs. complex surface	Flattened with nodular cusps	Flattened with nodular cusps
Tongue:	Extremely rough for use in tearing meat	Moderate to rough	Moderate to rough	Smooth; used mainly like a shovel for food	Smooth; used mainly like a shovel for food
Salivary Gland Size:	Small	Small	Large	Large	Large
Salivary Chemistry:	Acidic	Acidic	Alkaline	Alkaline	Alkaline
Salivary Enzymes:	No carb-digesting enzymes; lysosomes	No carb-digesting enzymes; lysosomes	Has carb-digesting enzymes like ptyalin	Has carb-digesting enzymes like ptyalin	Has carb-digesting enzymes like ptyalin
Stomach Capacity:	60-70% of total vol. of digestive tract	60-70% of total vol. of digestive tract	Less than 30% of tot. vol. of digestive tract	21-27% of total vol. of digestive tract	21-27% of total vol. of digestive tract
Stomach Acidity:	Less than or = pH 1 with food in stomach	Less than or = pH1 with food in stomach	pH 4 to 5 with food in stomach	pH 4 to 5 with food in stomach	pH 4 to 5 with food in stomach
Peristalsis:	Does not require fiber to stimulate	Does not require fiber to stimulate	Requires fiber to stimulate	Requires fiber to stimulate	Requires fiber to stimulate
Length Of Small Intestine:	1.5 to 3 times body-length	3 times body-length	20 times body-length	9 times body-length	9 times body length
Colon Type:	Simple	Simple	Complex	Complex	Complex
Colon Length:	Short	Short	Long	Long	Long
Colon Shape:	Smooth	Somewhat sacculated	Sacculated	Sacculated	Sacculated
Colon Chemistry:	Alkaline	Alkaline	Acidic	Acidic	Acidic
Liver Type:	Complex with 5 distinct chambers	Complex	Simple	Simple	Simple
Liver Size:	Proportionally 50% larger than others	Proportionally larger than herbivores	Slightly larger than frugivores	Proportionally relatively small	Proportionally relatively small
Bile Flow:	Comparatively heavy	Comparatively moderate	Comparatively weak	Comparatively weak	Comparatively weak
Vitamin A (liver detoxification):	Can metabolize large amounts efficiently	Can metabolize large amounts efficiently	Can only metabolize smaller amounts eff.	Can only metabolize smaller amounts eff.	Can only metabolize smaller amounts eff.
Short-Chain Fatty Acids:	Can't convert to LCFAs	Can't convert to LCFAs	Can convert to LCFAs	Can convert to LCFAs	Can convert to LCFAs
Cholesterol:	Can metabolize large amounts efficiently	Can metabolize large amounts efficiently	Can only metabolize phytosterols effic.	Can only metabolize phytosterols effic.	Can only metabolize phytosterols effic.
Uricase:	Renal secretion (kidneys)	Renal secretion (kidneys)	No secretion	No secretion	No secretion
Urinary Concentration:	Extreme	Extreme	Comparatively weak	Moderate	Moderate
Urinary Chemistry:	Acidic	Acidic	Alkaline	Alkaline	Alkaline
Digestion (time to complete):	From 2 to 4 hours	From 6 to 10 hours	From 24 to 48 hours	From 12 to 18 hours	From 12 to 18 hours
Placenta (mammals):	Zonary-shaped	Zonary-shaped	Discoid-shaped	Discoid-shaped	Discoid-shaped
Limbs:	Has 4 paws with claws	Has 4 paws with claws or hooves	Has 4 legs with hooves	Has arms with pre-hensile hands & feet	Has arms with prehensile hands
Locomotion:	Walks on all 4 legs	Walks on all 4 legs	Walks on all 4 legs	Walks on all 4 limbs or upright	Walks Upright
Mammaries:	Multiple teats for nursing litters	Multiple teats for nursing litters	Multiple teats for 1-2 offspring or litters	Dual breasts for nursing 1-2 offspring	Dual breasts for nursing 1-2 offspring
Skin And Hair (mammals):	100% covered in hair	100% covered in hair	Pores with extensive hair covering body	Pores with extensive hair covering body	Pores with minimal hair
Cooling System:	Has sweat glands in paws only; panting	Minimal sweat glands in mammals	Has sweat glands all over the body	Has sweat glands all over the body	Has sweat glands all over the body
Nails:	Sharp claws	Sharp claws or blunt hooves	Blunt hooves	Flattened nails	Flattened nails