

# **Beginner's Guide To Prey Model Raw**



**Where did this information come from?:** The following is a compilation of information from numerous raw feeders, wildlife biologists, online sources, print sources, and first-hand knowledge from feeding a Prey Model Raw diet.

**What is the purpose of this guide?:** This guide is meant to provide basic knowledge of the prey model raw diet for canines.

It is not meant to replace any veterinary medical opinion or the advice of any canine nutritionist. The author has tried to ensure all the information in this document is accurate and complete but the author will not be held liable in any way for any errors or omissions in any content, or for any loss or damage of any kind incurred as a result of the use of any content.

**Do I have to read the whole guide to start feeding a Prey Model Raw Diet?:** Absolutely not. This guide contains a lot of information which can be overwhelming. That is why it is divided into six sections. Those six sections are divided even further. You can choose to read through the entire guide or just read certain sections or just read certain parts within a section.

If you are interested in knowing if you can feed meat from a certain animal, go to “Can I Feed?” If you are interested in how much to feed your dog, go to “Basic Information & Frequently Asked Questions.” If you are just interested in how to start feeding a Prey Model Raw diet, go straight to “Getting Started.”

If you have questions, comments or suggestions, I can be reached at Chance’s website: <http://www.chanceslittlewebsite.com>

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## ~ BASIC INFORMATION & FREQUENTLY ASKED QUESTIONS ~

### **What Is Prey Model Raw?**

A prey model raw diet strives to come as close as possible to the diet of a wild canine without requiring our dogs to go out into the world and hunt wild prey animals. It is based on a diet of whole meat cuts, connective tissue, fat, bone, blood, organs, etc. It uses a variety of cuts from a variety of prey animals in order to feed all the nutrients found in whole prey. Because of this, it is also called “FrankenPrey.” Whole prey is fed when available.

A wolf pack primarily hunts and kills large ruminants such as deer, elk and moose. Because of this, venison is considered the most natural prey animal to feed. When large prey is scarce, a wolf pack will also hunt smaller prey animals.

Individual wolves or wolf pairs can’t safely bring down large prey so they hunt and kill smaller animals such as squirrels, rabbits, chipmunks, etc.

### **What To Feed: A Brief Introduction**

Prey model raw is about feeding whole foods instead of chopped or ground foods. Every part of a prey animal is fed except hard, inedible bones and stomach contents. No fruits or vegetables are fed.

Chewing through whole cuts of meat, both boneless and bone-in, tendons and cartilage helps keep the teeth and gums healthy. This in turn helps keep the whole body healthy. Crunching through bone, chewing through tendons and ligaments, and gnawing and ripping meat provides mental stimulation for your dog.

Feed as much “red” meat as possible and feed “red” meat organs as well. “Red” meat includes all livestock and wild game mammals. The more the livestock is allowed to move around the redder the meat.

“Red” meat includes, but is not limited to:

- Caribou and Reindeer
- Cow
- Deer
- Elk
- Emu
- Goat, both domestic and wild
- Heart, any animal
- Horse
- Moose
- Ostrich
- Pig
- Rabbit, wild and domestic if the domestic rabbit gets a lot of exercise
- Sheep, both domestic and wild
- Squirrel

If you have access to a variety of affordable “red” meat with edible bone, there is no need to feed poultry at all. Each prey animal you feed has different levels of nutrients and by feeding a variety of these prey animals, your dog gets a balanced diet over time. It is recommended to feed at least three different prey animal species.

Ethnic markets typically carry a large variety of hard to find animal parts, organs, and even whole prey animals.

There is more in-depth information about what can and should not be fed in the “Can I Feed?” section.

### **Know Thy Dog!**

“Know thy dog!” means observing your dog while it eats and becoming familiar with its chewing and eating habits, quirks, etc. By observing how your dog eats its raw meals, you will learn what you can and can’t safely feed to your dog, whether your dog needs to be confined to eat, etc.

No matter how well you know your dog, always keep an eye on your dog while it eats. You just never know when some freak problem may occur.

### **Portion Sizes: How Big Should I Feed?**

Feed cuts of meat and prey animals that are appropriately sized for your dog to avoid choking hazards. Larger is better and it is recommended to feed cuts of meat and prey animals that are the size of your dog’s head or bigger. Even the best chewer may try to swallow a piece of food that is too small for it.

### **Meat, Bones & Organs: How Much Of Each Should I Feed?**

No matter the size of the prey animal, what they all have in common is what they are made up of. In other words, all prey animals are made up of muscle meat, bones, organs, connective tissues, skin, blood, stomach contents, etc.

On average, the edible parts of the prey animals commonly eaten by wolves are made up of approximately:

- 80% – 85% muscle meat, fat, connective tissue, skin, heart, lungs, etc.
- 10% – 15% edible bone
- 2.5% – 5% liver
- 2.5% – 5% other organs

A good starting point for percentages is:

- 80% muscle meat, etc.
- 10% edible bone
- 5% liver
- 5% other organs

As your dog becomes used to eating a prey model raw diet, you will learn what percentages of meat, fat, edible bone, and organs work best for your dog and you can adjust accordingly.

### **Daily Feeding Amounts: How Much Food Should I Feed Per Day?**

Prey model raw is fed by food weight, not volume like kibble. In the beginning, you will want to have a good digital kitchen scale to weigh out meal portions. As you get used to feeding raw, you may learn to “eyeball” meals.

When starting a raw diet, start with 2% of your dog’s ideal adult body weight.

The standard feeding percentages for adult dogs is:

- 1.5% of body weight per day for slight weight loss
- 2.0% – 3.0% of body weight per day for maintenance
- 3.5% of body weight per day for slight weight gain

Some dogs, especially smaller breeds or working dogs, may need to be fed a higher percentage per day to maintain weight. Some dogs may need a lower percentage per day to maintain weight.

The standard feeding percentages for puppies can be calculated in two ways:

- 2.0% – 3.0% of the estimated ideal adult body weight
- 10% of the current ideal body weight, changes as the puppy grows

The most important thing to remember is to feed for a healthy body condition and adjust accordingly. You should be able to easily feel your dog’s ribs by lightly running your hands across its sides and your dog should have a visible waist when viewed from above.

If your dog is getting a little padding on the ribs, cut back the amount fed by a 0.25% and see how that affects the body condition. If your dog could stand a little more padding, feed a 0.25% more. Make all adjustments slowly. Feeding too much of any food, including kibble, can cause diarrhea plus it is easier to feed more food if a dog starts to get skinny as opposed to feeding less food if the dog starts to get fat.

### **Meal Frequency: How Often Should I Feed?**

For puppies, how often you feed depends on the age of the puppy. Since a puppy eats the same amount as an adult, it needs to eat more often.

The younger the puppy, the more meals you feed.

- Under 4 months of age: 4 meals
- 4 – 6 months of age: 3 meals
- 6 months of age to 1 year: 2 meals

For a puppy that is at an ideal body condition and is:

- Not finishing meals but becoming too thin, feed an extra meal or meals as needed.
- Finishing meals and maintaining body condition but having loose poop or diarrhea, feed an extra meal or meals as needed.

- Not finishing meals or not eating a meal and maintaining body condition, cut out a meal.

Adult dogs have more feeding options. How you feed your dog is really up to you and your dog. Some feeders feed a large meal and a snack, some feed one meal per day, some feed a very large meal one day and a small meal or a snack the next, some feed multiple days of food in one meal and offer only snacks for the next couple of days and some have dogs that will only eat until full and the dogs will choose to skip meals until hungry again.

Some terms you may come across are “BFFLO” or “big food fed less often” (BFFLO) and “gorge-and-rest.” BFFLO can be as simple as feeding a two-meals-per-day dog an entire day’s food in one meal. The dog would eat once that day and then twice the next day. Or feeding three meals at one time so the dog gets one big meal on that day and one regular-sized meal the next day.

Gorge-and-rest feeding involves feeding multiple days of food in one meal. This is something that has to be worked up to, gradually feeding bigger and bigger meals until you achieve your goal amount. Depending on the amount of food fed, you would then feed snack-sized meals until it is time to resume a normal feeding schedule. This can help teach your dog to become self-regulating which means the dog will eat until it is full and then walk away.

### **Where Should I Feed?**

Feeding prey model raw isn’t like putting kibble in a bowl. There is raw meat, meat “juice”, bits of bone, fat, etc. For this reason, you won’t want to feed your dog on your new carpet or fancy hardwood floors.

Any surface that is easy to clean is what you want. You can also feed on towels, bath mats, pieces of vinyl shower curtains, tile floors, concrete, or in your yard.

Since meat is moist and small things will stick to it, avoid feeding in places with gravel, mulch or bark dust. If you don’t want your dog to eat it, don’t feed on it.

### **Organs: Are They Really Needed?**

Organs are essential. They should ideally make up 10% of the diet – 5% liver and 5% other organs.

Try to feed a wide variety of organs and feed from as wide a variety of prey animals as possible. Organ variety can be hard to find in grocery stores or butcher shops. Ethnic markets typically have a large variety of non-liver organs.

Organs: Include brain, spleen, liver, kidney, testicles, ovaries, pancreas, thymus, etc. – anything that secretes or is “squishy”.

Not Organs: Include heart, lung, gizzard, uterus, stomach, intestines, tripe, skin, etc. – anything that does not secrete or feels meaty is fed as meat.



## **Vegetables, Fruits & Grains: Why Aren't These Fed?**

Wolves and dogs are opportunistic carnivores. This means they thrive by eating other animals but can stay alive eating fruits, vegetables, grains, grasses, carrion, and rotting garbage. They lack the grinding molars of omnivores and herbivores and their jaws are shaped to prevent the lateral movement needed to grind things like fruits, vegetables, and grains.

Contrary to popular myth, wolves do not routinely eat the stomach contents of their prey. Leading wolf researchers have observed that the stomach contents of small prey such as rabbits and squirrels are eaten because the entire animal is eaten. This is due to the prey being so small it is eaten whole instead of being ripped apart. But with ruminants and other large prey, the stomach is punctured when it is removed from the abdominal cavity and the stomach contents are spilled out into the kill site. The intestines are typically shaken to remove the contents as well.

From L. David Mech's book "Wolves: Behavior, Ecology, and Conservation" (2003):  
"The vegetation in the intestinal tract is of no interest to the wolves, but the stomach lining and intestinal wall are consumed, and their contents further strewn about the kill site." (pg.123)  
"To grow and maintain their own bodies, wolves need to ingest all the major parts of their herbivorous prey, except the plants in the digestive system." (pg.124)

Some, but not all, wolves will eat vegetation, such as grasses and especially sweet ripe berries but the amount of vegetation eaten makes up a miniscule amount of the diet during these times. There is a lot of competition for things like berries and the growing season is typically very short, only a couple of months, in many places wolves live.

## **Supplements & Vitamins: Should I Use Them?**

Most healthy dogs will not need extra supplementation when fed a proper prey model raw diet. For dogs with health problems or medical conditions, follow the expert's advice regarding supplementation use.

**Fish Oil:** All dogs fed commercially raised meat will benefit from supplementation with high quality fish oil containing Omega 3 Essential Fatty Acids (EFAs). Commercially raised livestock is grain-fed. Grain-fed animals are low in anti-inflammatory Omega 3 EFAs and high in inflammatory Omega 6 EFAs. Dogs fed grass-fed and finished meats or wild meats will be eating meats with more natural Omega 3 & 6 ratios.

**Joint Supplements:** A prey model raw diet includes cartilage and connective tissues so it will contain natural glucosamine and chondroitin but not enough to be at therapeutic levels. If you do need or want more joint support, it is best to use supplements instead of trying to feed a diet high in dietary cartilage since you would have to feed less meaty meat. Dietary cartilage is a good, fun treat to feed and includes: trachea, gullet, poultry feet and tendons.

**Vitamins:** Vitamin supplementation should not be needed if your dog is being fed a variety of mammal meat cuts from a variety of prey animals and/or whole prey animals and is getting the proper percentages of meat, bone and organs.

## Balancing The Diet

Despite what dog food companies say, dogs do not need complete and balanced nutrition at every meal. Veterinarians recommend incomplete and unbalanced diets to clients frequently.

- When a dog experiences digestive upset, veterinarians recommend the owner feed a bland cooked diet with only a single protein and a single starch. These bland diets are not even close to being complete and balanced.
- When a dog has suspected food allergies, they are typically put on a food trial of a single protein and a single starch. Food allergy trials can last for 1/4 of a year!

How do these dogs survive these veterinarian recommended incomplete and unbalanced diets? By using the nutrients stored by the body just for times like these.

The body is designed to store excess essential nutrients and use those stores when the diet isn't balanced. This is why dogs, and humans, can survive periods of famine or periods of eating poor quality diets without suffering serious health problems.

Even “complete and balanced” commercial dog foods are not truly complete or balanced. Manufacturers must over-supplement foods to make up for losses during manufacturing and storage. If less of a certain vitamin or mineral is lost, it can lead to dangerous excesses over time. If more is lost, it can lead to dangerous deficiencies over time.

Even today no nutritional expert is certain how all these vitamins and minerals found in food interact with each other or even what vitamins and minerals are essential. “Essential” just means the body can't manufacture that particular vitamin or mineral and must get it from the diet. It wasn't too long ago that cats eating grain-based commercial dry foods were dying from taurine deficiencies because no one realized taurine, found in meat, was essential for them.

A prey model raw diet achieves balance over time whether it is over one week or one month. Bone and organs, which are essential to the diet, are typically not fed every day but it all depends on how your dog does with various combinations of meat, bones and organs. You can certainly feed bone and organ daily if you wish.

It is recommended that you feed at least three different species of prey animals. By providing lots of mammal meat, prey animal variety, and the proper percentages of meat, bones and organs, you will gradually achieve the proper amounts of fat, protein, vitamins, minerals and enzymes.

There is a Microsoft Excel spreadsheet available for raw feeders at:

<http://www.packlunchraw.com/spreadsheet>

By inputting a few numbers, the spreadsheet will tell you how much raw food your dog needs and will give you the nutrient profile for your dog. By using the spreadsheet and a website like [Nutrition Data](#) or the [USDA FoodData Center](#), you can see how your dog's diet compares to its nutrient profile and will be able to make adjustments if needed.

## Calculating Percentages

Our example dog will weigh 50 lbs. and we will feed 2% of its body weight per day.

- 1.) Convert the percentage into a decimal number.

- $2 \div 100 = 0.02$

2.) Multiply your dog's IDEAL weight by the percentage you just converted into a decimal number.

- $50 \text{ lbs.} \times 0.02 = 1.0 \text{ lb.}$

This will give you the TOTAL weight in pounds that your dog will eat per day, including treats.

3.) To make calculating the amount of bones, organs and meat to feed easier, you can convert pounds to ounces. There are 16 ounces in 1 pound so multiply the total pounds by 16.

- $1 \text{ lb.} \times 16 \text{ oz.} = 16 \text{ oz.}$

So now you know how much food this dog needs to eat each day but how much of that should be meat and how much of that should be edible bones, etc? To figure this out, you will use the percentages 80-10-5-5. At the beginning, you will actually NOT worry about calculating these percentages. Starting a prey model raw diet is covered in the "Getting Started!" section.

Since prey model raw is balanced over time instead of every day, you may not feed bone or organs daily. For this reason, it is often easier to calculate your dog's percentages over a 7-day period. These calculations can be made using ounces or pounds.

1.) Take the total amount of food fed per day and multiply by 7.

- $16 \text{ oz.} \times 7 = 112.0 \text{ oz.}$
- $1 \text{ lb.} \times 7 = 7.0 \text{ lbs.}$

This gives you the total amount of food your dog will eat per week.

2.) Figure out how will be muscle meat, fat, connective tissue, etc. using 80% as a starting point. Convert the percentage into a decimal:

- $80 \text{ divided by } 100 = 0.80$
- $0.80 \times 112.0 \text{ oz.} = 89.6 \text{ oz.}$
- $0.80 \times 7 \text{ lbs.} = 5.6 \text{ lbs.}$

3.) Figure out how much will be edible bone using 10% as a starting point.

Convert the percentage into a decimal:

- $10 \text{ divided by } 100 = 0.10$
- $0.10 \times 112.0 \text{ oz.} = 11.2 \text{ oz.}$
- $0.10 \times 7.0 \text{ lbs.} = 0.7 \text{ lbs.}$

4.) Figure out how much will be liver using 5% as a starting point.

Convert the percentage into a decimal:

- $5 \text{ divided by } 100 = 0.05$
- $0.05 \times 112.0 \text{ oz.} = 5.6 \text{ oz.}$
- $0.05 \times 7.0 \text{ lbs.} = 0.35 \text{ lbs.}$

5.) Figure out how much will be other organs using 5% as a starting point.

Convert the percentage into a decimal:

- 5 divided by 100 = 0.05
- 0.05 x 112.0 oz. 5.6 oz.
- 0.05 x 7.0 lbs. = 0.35 lbs.

Using the calculations you just did, a 50 lb. dog eating 2% of its body weight will eat per week:

- 89.6 oz or 5.6 lbs. of muscle meat, connective tissue, fat, lungs, heart, etc.
- 11.2 oz. or 0.7 lbs. of edible bone
- 5.6 oz. or 0.35 lbs. of liver
- 5.6 oz. or 0.35 lbs. of other organs

### **Gulpers, Bolters & Non-Chewers: Ideas On Feeding Them**

Dogs that are gulpers, bolters, and non-chewers present challenges when it comes to prey model raw. Many kibble-fed dogs do not properly chew raw food when starting out simply because they have never learned, or needed to learn, to chew their food. Since dogs lack the grinding molars of omnivores and herbivores, and their jaws are built to prevent the lateral movement necessary to produce a grinding motion, they just scoop the hard kibble out of their bowls and either swallow the pieces whole or chomp on the mouthful of kibble a couple of times and swallow.

Some dogs bolt their food because of actual or perceived competition from other animals in the household or because they want to finish their food first and try to steal food from their housemates. For these dogs, you can gate off areas so you can observe your animals while eating but the animals can't see each other. If separating the animals while they all eat at the same time isn't possible, you can feed each animal separately in a quiet location away from any competition.

Some dogs may try to take their food and run when the food gets to a size that isn't safe for them to eat or when they have eaten all they are supposed to in a single meal and you come to take their food away. These dogs need to be fed in a way that they can't run off and hide. You can solve this by feeding in an enclosed area where the dog can't run off or hide behind furniture. A crate or gated area in a quiet location is perfect.

If you do have to feed one of these types of dogs, there are several things you can try:

- Feeding foods larger than your dog's head so the dog has to chew.
- Feeding foods that are frozen or partially frozen so the dog has to spend more time chewing. This can also help teach a dog how to chew.
- Feeding hard to eat foods that are awkwardly shaped such as racks of ribs or heads.
- Cutting food into pieces, freezing the pieces into awkward shapes and feeding that frozen. Leftover pieces can be refrozen for later eating.
- Freezing whole cuts of food together into awkward shapes. Leftovers can be refrozen for later eating.
- Freezing the food to a flat surface (plate, cookie sheet, etc.) and feeding frozen.

### **Taking Away Food: How To Do It Safely And Without Causing Problems**

When feeding foods that are larger than a single meal you need to be able to safely take the food away from your dog.

One important thing to know is even if your dog has never been a resource guarder, it may not want anyone trying to take away its raw meal. Raw food is very high value to dogs. To safely take food away from your dog and not cause resource guarding and/or bolting/gulping problems, simply trade your dog for it. Use a treat or bit of meat your dog loves and practice trading at times other than meal times.

You want your dog to know that when food is taken away, it is taken away because it is getting something that it likes just as well or, if possible, likes even better.

### **Leftovers & Refreezing Meat**

When feeding meals that are more than your dog will eat at one time, what do you do with the leftover piece? If what is left over is big enough to be safely fed, put it in the fridge and feed for the next meal. You can also refreeze it for later use. It is perfectly safe to refreeze meat multiple times as long as the meat has not sat around unrefrigerated for hours and it hasn't spoiled. The only reason humans don't eat refrozen meat is because we don't like the change in texture and taste. Dogs don't care. In fact, many times raw feeders buy meat that is frozen, partially or complete thaw it out, cut it into smaller portions and refreeze it.

If what is left can't be safely fed to your dog, you can pull the meat off to feed as treats or to use as part of a boneless meal. Or you can freeze it with other cuts or pieces of meat so all the meat sticks together and makes a properly sized frozen chunk that can then be fed.

### **Feeding On A Schedule & Bile Vomiting**

Raw food digests at a faster rate than kibble or other processed foods so some dogs may experience bile vomit when their stomachs are empty. This just means the dog is bringing up straight bile. Bile is the digestive fluid the liver makes and it is stored in the gallbladder.

Bile vomiting typically happens when the dog is fed on a set schedule. As the regular feeding time approaches or if the meal is a little late, the body anticipates the food and bile vomiting results. To avoid bile vomiting, feed on a random schedule. For example, instead of feeding every day between 5:30 p.m. and 6:00 p.m., feed between 5:00 p.m. and 8:00 p.m.

If bile vomiting happens even with a random feeding schedule or your schedule doesn't allow for a random feeding schedule, try adding in a midday or bedtime snack to help reduce bile vomiting. If that doesn't work it may be necessary to feed a smaller meal in between the main meal(s).

### **Poop**

Raw fed poop reflects what has been eaten but it is typically firm, small, and essentially odorless as far as poop goes. Poop will always smell like poop.

When a dog is starting on a raw diet, you may see some soft, badly formed, oddly textured and/or oddly colored poop. Dogs sometimes have trouble digesting raw food properly after being on highly processed commercial foods and it takes a while for everything to start working properly. It is not unusual for a dog new to raw to go a couple of days without pooping.

Diarrhea, which is loose and watery poop that is frequent and/or urgent, can occur but with some basic feeding changes it should go away after a day or two.

Poop with some flecks of bright red blood is a sign of large intestine irritation, especially if the dog has had diarrhea or has been straining to go, or is a result of small scratches in the gastrointestinal tract caused by very bony poop.

When loose poop occurs during the starting phase, there are several things that can be done:

- Remove a little skin and/or fat, especially if there is a little visible mucus. Once the poop is normal for a couple of days, slowly start removing less and less of the skin and/or fat.
- Feed a little more bone. Once the poop is normal for a couple of days, slowly start feeding cuts with less bone.
- Slightly reduce meal size or, if you are not weighing meals, start weighing the meals in case it is caused by overfeeding. Remember to keep track of treats given as well to see if you are overfeeding.

When loose poop occurs during the introduction of a new protein or organ, go back to the last thing fed that produced a normal poop and feed that until the poop is normal for a couple of days. Then start adding in very small amounts of the new protein or organ again.

Monitoring the poop is crucial with a raw diet.

- Poop that is too firm or white and crumbly means too much bone has been fed so the next meal should be meatier.
- Poop that is too soft may mean too little bone or too much organ or too much overall food.
- Poop that is too soft with mucous may mean too much fat and/or skin.

Knowing how different combinations of bone, meat, fat and organs interact together for a particular dog helps avoid surprises. For example, if a meal is supposed to be bone-in but you only have boneless then you know the poop will be soft and the next couple of meals need to be bone-in.

There can even be differences in appearances caused by the animal fed or if large meals of certain organs are fed. For example, feeding a lot of chicken may produce a yellow or orange poop. Feeding a lot of liver at once may produce a dark poop. Generally the darker the meat, the darker the poop.

## **Water Consumption**

Meat is made up mostly of water whereas kibble has almost no moisture content left in it. This means most dogs will drink much less water on a raw diet. As a result, some dogs do not get enough water.

If your dog doesn't drink enough water, you can try:

- A pet drinking fountain. Many animals are attracted to running water.

- Placing your dog's meals in a bowl with some water prior to feeding the meat. This will flavor the water slightly. You can put the bowl of water next to the meat when you feed your dog.
- Adding some homemade broth or other dog-safe flavoring to your dog's water.

## **Bacteria**

Bacteria are everywhere! Humans evolved in the presence of bacteria and bacterial exposure is absolutely necessary for the development of a healthy immune system. Tens-of-thousands of immunocompromised humans feed their pets raw diets without getting sick.

Your dog is more likely to become sick from the bacteria and deadly mold toxins in kibble than from human-quality meats bought at the grocery store or butcher or USDA-inspected meat processors. The starches, rancid fats and sugars in kibble provide much better food sources for bacteria than the proteins in raw meat. Bacteria in raw meat can make your dog sick but usually only if your dog already has an immunocompromised system or some underlying, undiagnosed problem or disease. Any change in diet, even switching from one type of kibble to another, can trigger an underlying condition but raw diets typically get blamed for causing a problem that already existed but had not yet presented.

Dog saliva contains lysozyme, an enzyme that lyses (breaks down) and destroys harmful bacteria. Their short digestive tract is designed to push food and bacteria through quickly without giving bacteria time to colonize. The extremely acidic environment in the gut is also a good bacteria colonization deterrent. Remember, dogs can lick themselves, lick other animals, eat things that are rotting and eat poop – all without getting sick. All dogs, even kibble-fed dogs, may shed salmonella and other bacteria in their feces. This actually proves that the dog can effectively eat bacteria-laden foods and pass those bacteria out of their systems with no health problems.

By following standard food safety protocols, it is very easy to minimize human bacterial exposure and these practices should apply to people who feed kibble as well.

- Wash your hands after picking up dog poop.
- Wash your hands after handling raw meat or commercial dog foods.
- Clean counters and feeding areas with soap and water or other food-safe cleaners.
- Wash food bowls after each meal.
- Wash water bowls daily or after every feeding if you put your dog's meal in the water bowl to get your dog to drink more.

## **Parasites**

Meat fit for human consumption from a USDA inspected source and/or processed in a USDA facility should not have any danger of parasites. In fact, many common parasite dangers have been completely eradicated from the U.S. meat supply. USDA pork no longer carries the danger of trichinosis.

If you are feeding wild game, meat that is not for human consumption or meat from a non-USDA inspected farm or processor, check the meat and organs prior to feeding. If something doesn't look or smell right, don't feed it.

Freezing meat until it is frozen solid and keeping the meat frozen for at least 2 weeks will take care of most parasites. Other parasites such as tapeworm will need to be frozen for at least a month.

## **Veterinarians**

Veterinarians see the health problems caused by improperly formulated home-prepared diets, whether they are cooked or raw, so many veterinarians are against these diets. Most veterinary schools spend little time teaching animal nutrition because they are busy teaching everything else a veterinarian has to know by the time she or he graduates. At many of these schools, what is taught is from material provided by the makers of prescription diets. Many of these companies also offer free pet food to veterinary students and veterinary technician students. The average veterinarian graduates with about the same level of canine nutrition knowledge as an educated dog owner. Most know next to nothing about home-prepared diets and know even less about raw diets.

Veterinarians may bring up the lack of scientific research as a reason not to feed a raw diet of any kind, let alone prey model raw. Who would fund such a study though? The kibble industry is a multi-billion dollar industry so they would not fund a study that had any chance of showing that there may be something better than their kibble.

Veterinarians may say bones damage teeth or will kill your dog. The “Bones” section tells you what you need to know about safely feeding bones.

Even veterinarians that are fine with raw diets may tell you that you must feed vegetables and fruits, use “balancers” or give vitamins to balance the diet. Wolves do not need plant matter and vegetation because wolves are opportunistic carnivores, not omnivores. Dogs and wolves share 99.8% of the same mDNA and are classified as opportunistic carnivores. Dogs do not have different dietary needs than wolves.

Veterinarians may refer to raw as a “fad” diet when kibble is actually the newcomer. The first dry food was not produced until the 1860s. It did not become widely available until the 1930s when grain mills and companies that produced grain-inclusive human foods realized kibble was a good way to make a profit off waste products not fit for human consumption.

Once you have answered any questions your veterinarian may have and assured him or her that you are safely feeding a properly balanced diet, he or she should either be fine with it or stop mentioning it. If not, it is time to look for a new veterinarian!

A few veterinary schools are now teaching actual nutrition courses that cover home prepared diets as well as kibble and other commercially available diets other than kibble.

## **Kibble & Health Problems**

Ever since kibble became a popular way to feed, there has been an increase in many diseases and health problems. Some of these diseases and health problems were not a major issue with dogs or did not affect dogs before kibble became popular.



These include:

- Cancer
- Diabetes
- Food allergies
- Hip dysplasia
- Kidney problems
- Liver problems
- Obesity
- Pancreas problems
- Periodontal disease – the main cause of stinky, nasty “dog breath”
- Skin problems

One reason for an increase in some of these health problems is due to more people owning dogs and the advances in veterinary diagnostic technology. Another reason is poor breeding practices by show breeders, puppy mills and backyard breeders. Another reason is diet. Research into human diseases has shown a strong link between diet and many of the “common” diseases afflicting dogs today.

### **Some Benefits Of A Raw Diet**

There are many benefits to feeding a raw diet.

- Clean, fresh breath
- Clean, shiny, white teeth
- More energy and/or more stable energy (less hyperactivity)
- Softer, shinier coat
- Little to no doggy odor
- Firmer, more muscled body
- Decreased itching and scratching
- Better weight maintenance
- Overall better health (less trips to the vet between checkups and less vet bills)
- Smaller, less smelly poops that are quicker to decompose
- Stronger immune system
- Knowing exactly what your dog is eating and the quality of the “product”

### **The Risks Of Raw**

Everything has a risk associated with it – regardless of what you feed your dog, there will **always** be some sort of risk.

**Aggression:** Raw meat does not make a dog aggressive or a killer or “blood thirsty.” A dog does not get “a taste for blood.” Raw is a high-value item to the dog though and some dogs that have never shown signs of resource guarding their food may start after they begin eating raw. This is dealt with the same way any resource guarding issue is dealt with.

**Bacterial Septicemia:** Rare and usually occurs only in immunocompromised pets, sick pets or pets with underlying health issues. Kibble-fed dogs can also develop this.

**Choking:** The primary cause of choking is feeding something that is too small. Kibble-fed dogs

don't learn to chew their food so the risk of choking is greater until the dog learns how to chew. Dogs can also choke on: kibble, rawhides, dental chews, treats, rocks, sticks, water, balls, synthetic chew bones, toys, their own saliva, etc. Anytime your dog swallows and makes a big "HORK" sound, it has choked. Any object the dog places into its mouth presents a choking hazard.

Constipation: Happens if fed too much bone. If constipation or problems passing stool becomes a problem simply feed less bone and feed more meat or organs. Kibble can also cause constipation.

Intestinal Perforation and Obstruction: A possibility but the Journal of American Veterinary Medicine published an article stating: "the actual incidence of complications resulting from the ingestion of raw bones is unknown" (Freeman, L.M. and K.E. Michel. Evaluation of raw food diets for dogs. JAVMA. 218(5): 705-709). Most claims of bone-caused perforations are due to cooked bones which are dangerous. Perforations have also been caused by: knives, sticks, pieces of glass, sewing needles and fish hooks. Common causes of obstructions are: tennis balls, socks and other clothing, toys, synthetic bones, sticks, string, rawhides, rocks and dental chews.

Pancreatitis: Pancreatitis, kidney disease and other diseases typically get blamed on raw food. In reality, there were underlying factors and/or underlying diseases that presented with a diet change. It is typically kibble-fed dogs that suffer from pancreatitis when they receive a fatty meat they do not normally get. Getting into the garbage and eating large amounts of grease/cooked fat or eating rancid grease/fat can trigger pancreatitis in a healthy dog so make sure your dog can't get into the garbage. If a fatty meal triggers a bout of pancreatitis, then that means the pancreas, and possibly other organs, are not well. A healthy dog with a healthy pancreas will not suffer from pancreatitis from eating a raw diet.

Parasites: If you are getting your meat from a human-approved source and taking proper precautions with feeding wild prey, this should not be an issue. In March 2014, I learned about a parasite called Sarcocystis (a.k.a. Rice Breast Disease, Sarcosporidiosis, Sarcocystosi) that infects the muscles of reptiles, birds, and mammals. It is a coccidian-like protozoa parasite that typically causes no illnesses or diseases in carnivores. Freezing the parasite at 24.8 degrees Fahrenheit for 2 days or at -4 degrees Fahrenheit for 1 day killed the parasite in experiments.  
[http://www.nwhc.usgs.gov/publications/field\\_manual/chapter\\_28.pdf](http://www.nwhc.usgs.gov/publications/field_manual/chapter_28.pdf)  
[http://www.merckmanuals.com/vet/musculoskeletal\\_system/sarcocystosis/overview\\_of\\_sarcocystosis.html](http://www.merckmanuals.com/vet/musculoskeletal_system/sarcocystosis/overview_of_sarcocystosis.html)  
<http://www.bio.unipd.it/bam/PDF/5-3/Lindsay.pdf>  
<https://www.stanford.edu/class/humbio103/ParaSites2004/Sarcocystis/lifecycle.htm>

## ~ BONES ~

### **Never Feed Cooked Bones!!!**

Cooked bones are dangerous and can be deadly. These include smoked, dehydrated and boiled bones. Cooking causes bones to become brittle which means they easily splinter. Cooking also makes them much less digestible. Since they are less digestible they can cause blockages and splintered bones can cause perforations from the esophagus all the way to the anus.

### **Edible Bones**

Edible bones are essential in a prey model raw diet. They provide the bulk needed to form a proper stool and are a source of calcium, phosphorous and many other nutrients. They are covered with lots and lots of meat and are soft enough to be eaten without causing damage to the teeth.

They are found in animals like:

- Poultry
- Rabbits
- Goats
- Lambs
- Calves/Veal
- Pigs
- Rodents

What makes a bone edible depends on your dog. Some dogs can easily eat lamb leg bones while some dogs struggle with turkey legs. Some dogs will try to shear through beef ribs in one bite while others will nibble away at the edible portions of the ribs and leave the inedible portions alone. Unlike cooked bones, raw edible bones are fairly flexible, rarely splinter and are fully digestible.

There is always a possibility that a raw bone can cause problems such as perforations, blockages, choking, tooth fractures, etc. but most of the time, the raw bone was improperly fed such as feeding something that was too small, bare or not enough meat, a cut bone, bone that is too hard, etc.

### **Wreck Or “Recreational” Bones**

Wreck bones are bones that are too hard and dense for your dog to eat. These bones are also called recreational bones, rec bones, dog bones, marrow bones and soup bones. They are notorious for chipping and breaking teeth, causing perforations and blockages, etc. Any tooth damage done by these bones may not be noticeable at first.

Even though they have the potential to cause so much damage, many pet food companies market them as being the perfect tooth cleaning chew for dogs. Many grocery stores and butchers market these bones, stripped of most or all of their meat, as being perfect for dogs as well.

**Wreck Bones To Avoid**



You can feed a raw wreck bone if it is covered with plenty of meat but only if your dog will not try to eat the bone. Take the bone away once the bone starts to become bare of meat.



Beef Shank



Venison Leg



Beef Ribs



Beef Leg

### The Do's & Don'ts Of Bones

The following are some general do's and don'ts of feeding bone-in meats. As you become familiar with how your dog eats raw food, you will learn what you can and can't feed to your dog.

#### Do:

- Monitor your dog while it eats, even if your dog is a raw expert.
- Feed meaty bones, the more meat the better.
- Feed large to prevent the possibility of trying to swallow without chewing.
- Learn the doggie Heimlich maneuver if it will give you peace of mind.
- Remember that more dogs die from choking on kibble and tennis balls than from choking on raw bones and meat.

#### Don't:

- Feed the weight-bearing bones of large herbivores.
- Feed any bare bones or bones with little meat on them.
- Feed any bones that have been cut, such as steak and chops, or that are broken into sharp or jagged ends even if there is a lot of meat on them. These bones are a perforation hazard.
- Feed too much bone as this can cause constipation. This is easy to tell by looking at the poop.

- Feed smoked or cooked bones even if they are covered with a ton of meat.
- Feed items that are too small for your dog. This is anything your dog thinks it can swallow without chewing but is too big to be safely swallowed.

What do you do if your dog is eating and a piece of bare edible bone falls out? Follow the **know thy dog!** rule. If the bone is not jagged, sharp or splintered and you know your dog can safely eat it, by all means feed it. If not, get rid of it.

### **Average Bone Percentages**

The following percentages are average bone percentages for various cuts of meat and whole animals. Unless otherwise noted, these were obtained from the USDA nutrition database which has been replaced by the USDA FoodData Center at: <https://fdc.nal.usda.gov/>

#### **Chicken**

- Back ~ 44% Bone
- Breast ~ 20% Bone
- Drumstick ~ 33% Bone
- Leg Quarter ~ 27% Bone
- Neck with Skin ~ 36% Bone & 39% Skin and Separable Fat
- Neck without Skin ~ 59% Bone (calculated using the neck with skin percentages)
  - 2 oz. neck with skin
    - Bone:  $2.0 \times 0.36 = 0.72$  oz.
    - Skin & Fat:  $2.0 \times 0.39 = 0.78$  oz.
    - Meat:  $2.0 \times 0.25 = 0.5$  oz
  - The same neck with skin & separable fat removed
    - $0.5$  oz. meat +  $0.72$  oz. bone =  $1.22$  oz. total neck weight
    - $0.72 \div 1.22 = 0.59$  or 59%
- Thigh ~ 15% Bone & Cartilage
- Wing ~ 46% Bone
- Whole with Giblets ~ 31% Bone
- Whole without Giblets ~ 32% Bone

#### **Duck**

- Domestic, Whole ~ 28% Bone
- Wild, Whole ~ 38% Bone
- Wild, Breast ~ 15% Bone

#### **Fowl & Poultry, Miscellaneous**

- Cornish Game Hen ~ 39% Bone
- Goose ~ 19% Bone
- Guinea Hen ~ 17% Bone
- Pheasant ~ 14% Bone
- Quail ~ 10% Bone
- Squab (Pigeon) ~ 23% Bone

## Lamb

- Australian (trimmed to 1/8" fat)
  - Foreshank ~ 42% Bone
  - Leg
    - Center Slice ~ 6% Bone
    - Shank Half ~ 17% Bone
    - Whole (Shank & Sirloin) ~ 14% Bone
  - Loin ~ 28% Bone
  - Rib ~ 26% Bone
  - Shoulder
    - Arm ~ 9% Bone
    - Blade ~ 28% Bone
    - Whole (Arm & Blade) ~ 22% Bone
  
- Domestic (trimmed to 1/8" fat)
  - Foreshank ~ 52% Bone
  - Leg
    - Shank Half ~ 20% Bone
    - Sirloin Half ~ 24% Bone
    - Whole (Shank & Sirloin) ~ 22% Bone
  - Loin ~ 22% Bone
  - Rib ~ 29% Bone
  - Shoulder
    - Arm ~ 18% Bone
    - Blade ~ 25% Bone
    - Whole (Arm & Blade) ~ 22% Bone
  
- Domestic (trimmed to 1/4" fat)
  - Foreshank ~ 52% Bone
  - Leg
    - Shank Half ~ 20% Bone
    - Sirloin Half ~ 23% Bone
    - Whole (Shank & Sirloin) ~ 21% Bone
  - Loin ~ 21% Bone
  - Rib ~ 27% Bone
  - Shoulder
    - Arm ~ 17% Bone
    - Blade ~ 24% Bone
    - Whole (Arm & Blade) ~ 21% Bone
  
- New Zealand (untrimmed fat)
  - Foreshank ~ 45% Bone
  - Leg, Whole (Shank & Sirloin) ~ 23% Bone
  - Loin ~ 24% Bone
  - Rib ~ 31% Bone
  - Shoulder, Whole (Arm & Blade) ~ 25% Bone

- New Zealand (trimmed to 1/8" fat)
  - Foreshank ~ 45% Bone
  - Leg, Whole (Shank & Sirloin) ~ 24% Bone
  - Loin ~ 26% Bone
  - Rib ~ 33% Bone
  - Shoulder, Whole (Arm & Blade) ~ 26% Bone

### **Pork**

- Carcass ~ 18% Bone & Skin
- Feet ~ 30% Bone & Hard Tissue
- Leg (uncured Ham)
  - Whole ~ 17% Bone & Skin
  - Rump Half ~ 9% Bone
  - Shank Half ~ 13% Bone
- Loin
  - Blade Roast ~ 18% Bone
  - Center Loin Roast ~ 14% Bone
  - Center Rib Roast (Centercut Pork Loin) ~ 22% Bone
  - Sirloin Roast (Loin End, Hipbone, Sirloin End) ~ 17% Bone
  - Whole ~ 22% Bone
- Neck ~ 35% Bone (unconfirmed information)
- Ribs
  - Backribs ~ 30% Bone
  - Country-Style Not ribs but cut shoulder bones and not suitable bone-in
  - Spareribs ~ 30% Bone
- Shoulder
  - Arm Picnic ~ 16% Bone
  - Boston Roast (Boston Shoulder/Butt, Shoulder Butt/Blade) ~ 24% Bone
  - Breast ~ 61 mg. Sodium
  - Whole ~ 25% Bone & Skin
- Tail ~ 30% Bone & Hard Tissue

### **Rabbit, Domestic**

- Forequarters ~ 22% Bone (*Journal Of Animal Science 1983, 57:899-907*)
- Loin Region ~ 10% Bone (*Journal Of Animal Science 1983, 57:899-907*)
- Hindquarters ~ 17% Bone (*Journal Of Animal Science 1983, 57:899-907*)
- Whole Rabbit, uneviscerated ~ 8% Bone (*Hubbard Feeds rabbit management guide*)

### **Turkey**

- Back ~ 40% Bone
- Breast ~ 10% Bone
- Leg ~ 17% Bone
- Neck without Skin ~ 42% Bone
- Thigh ~ 15% Bone & Cartilage
- Wing ~ 33% Bone



- Whole ~ 21% Bone

**Veal**

- Rib ~ 35% Bone
- Shank (Fore & Hind) ~ 29% Bone
- Shoulder
  - Arm ~ 21% Bone
  - Blade ~ 32% Bone
  - Whole (Arm & Blade) ~ 28% Bone
- Sirloin ~ 25% Bone

## ~ Can I Feed? ~

### **Bear**

Bears can carry a form of trichinosis that is very resistant to cold.

If you choose to feed raw bear meat, it should only be fed after a very long period of being frozen solid. The colder the climate the bear lived in, the longer it would need to be frozen. The freezing period does not start until the game is frozen solid.

It is typically recommended that bear meat be thoroughly cooked and not fed raw.

From: <http://www.uaf.edu/files/ces/publications-db/catalog/hec/FNH-00262.pdf>

### **Brains, Eyeballs & Spines**

Brains contain glands that secrete so they are fed as part of the non-liver organ requirement. Eyeballs are also fed as non-liver organs.

### **Prion Diseases**

Many people are concerned about feeding brains, eyeballs and spines because of the risk of coming into contact with a prion disease.

Prion diseases or transmissible spongiform encephalopathies are rare progressive neurodegenerative disorders that affect both humans and animals. They have long incubation periods and are fatal.

They infect the brain, eyes and spinal cord of the animal. If any infected tissue comes in contact with other parts of the animal, then that part is infected as well.

The only way prion diseases are transmitted is by consuming infected tissue. Freezing or cooking infected tissue does not “kill” prion diseases.

Animals reported to be resistant to these diseases are rabbits (2003), canids (2008) and horses (2010). Prion diseases have not shown up in pigs.

Prion diseases include:

- Bovine Spongiform Encephalopathy (BSE): affects cattle – a.k.a. mad cow disease
- Chronic Wasting Disease (CWD): affects North American cervids (deer family)
- Scrapie: affects sheep and goats
- Transmissible Mink Encephalopathy: affects ranch-raised mink
- Feline Spongiform Encephalopathy: affects cats, rare
- Ungulate Spongiform Encephalopathy: affects hooved mammals, rare

Due to the 2003 beef recall, the USDA now prohibits from the human food supply:

- For cattle 30 months of age and older:
  - Skulls
  - Brains

- Trigeminal Ganglia
- Eyes
- Vertebral Columns
- Spinal Cords
- Dorsal Root Ganglia
- For all cattle regardless of age:
  - Small Intestines
  - Tonsils

Body parts from animals that were slaughtered for human consumption from USDA-inspected sources should be prion disease free.

According to the World Health Organization, there is currently no evidence that Chronic Wasting Disease can be transmitted to humans. Hunters are still advised to take common sense precautions when field dressing and processing members of the deer family where CWD is found.

What does all this mean? Feeding these parts from animals slaughtered for human consumption should cause you no anxiety. If feeding wild venison, check with wildlife officials to see if CWD is a problem and take proper precautions. If you are still worried, feed pork brains, eyeballs and spines. As of 2021, no prion diseases have ever been associated with pork.

## **Carnivores**

Wild carnivores will kill other carnivores but rarely eat them unless it is a time of famine. Many raw feeders will not feed carnivores to their dogs as it is unnatural in the wild. This includes mink, otter, marten, feline family members, canid family members, etc.

A general guideline is, “if it has canine teeth, do not eat.”

## **Enhanced Meat**

Meat that is enhanced with sodium or “broth” can cause diarrhea. Commonly enhanced meat includes poultry, lamb and pork. Some meat producers are starting to enhance beef as well.

The amount of sodium naturally found in meat varies by animal and even by cut of meat. For example, a whole turkey naturally contains 74 mg. of sodium but a turkey neck contains 105 mg. of sodium.

The amount of naturally occurring sodium can vary from animal to animal in the same species so if the sodium content shown on the label is slightly higher than average sodium content, that doesn't necessarily mean the meat was enhanced.

The following list shows the approximate amounts of naturally occurring sodium in a 4 oz. serving of various animals.

- Antelope ~ 58 mg.
- Beaver ~ 58 mg.
- Beef (carcass, separable lean & fat) ~ 67 mg.

- Beefalo (composite of cuts) ~ 88 mg.
- Bison (ground) ~ 79 mg.
- Caribou ~ 65 mg.
- Chicken ~ 79 mg.
- Deer ~ 58 mg.
- Duck, Domesticated ~ 71 mg.
- Duck, Wild ~ 63 mg.
- Elk ~ 66 mg.
- Goat ~ 93 mg.
- Goose, Domesticated ~ 83 mg.
- Guinea Hen ~ 76 mg.
- Horse ~ 60 mg.
- Lamb (composite, trimmed retail cuts) ~ 84 mg.
- Moose ~ 74 mg.
- Muskrat ~ 93 mg.
- Pheasant ~ 45 mg.
- Pork (carcass, separable lean & fat) ~ 48 mg.
- Quail ~ 60 mg.
- Rabbit, Domesticated (composite of cuts) ~ 46 mg.
- Rabbit, Wild ~ 57 mg.
- Squab ~ 61 mg.
- Squirrel ~ 117 mg.
- Turkey ~ 74 mg.
- Veal (composite, trimmed retail cuts) ~ 93 mg.
- Water Buffalo ~ 60 mg.

To determine the natural sodium content of a particular cut of meat, go to the USDA FoodData Central at: <https://fdc.nal.usda.gov/>

After your dog is used to raw, you may be able to feed enhanced meat occasionally but it should not be something you feed on a regular basis.

### **Expired Meat**

Feeding meat that has expired is a personal choice. Some canids even prefer to eat meat they have cached and dug up a few days later.

If meat is smelly, try rinsing it with water to see if the smell goes away. Some raw feeders will also wash smelly meat with a tiny drop of mild soap to remove the smell. Be sure to rinse well to remove all traces of soap. Don't feed anything that is moldy.

### **Fish**

Fish can be fed whole, including with the bones and head. Some people remove sharp fins and the tail prior to feeding. Fatty ocean fish contains the highest levels of Omega 3 Essential Fatty Acids (EFAs).

While high in Omega 3 EFAs, large predatory ocean fish such as tuna, king mackerel, shark, swordfish, golden bass, golden snapper and tilefish should **not** be fed on a regular basis due to these fish being more contaminated with things like mercury and PCBs.

Tilapia and catfish contain higher levels of Omega 6 EFAs which are not needed in the diet.

Of the freshwater fish, trout is typically highest in Omega 3 EFAs.

Some fish requires special measures to safely feed raw and some should not be fed at all.

### 1.) Fish Hooks & Lures

Fish that are caught using hooks and lures can and do swallow these items. The only way to recover them is to kill them. For fish that are under the legal minimum size and have swallowed the hook, anglers can only cut the line and release the fish back into the water. Other times, the line may break.

Fish can survive with hooks and lures still in their guts so please be aware of this possibility anytime you feed whole fish that have not been gutted, especially if you catch your own fish.

### 2.) Salmon Poisoning & Pacific Northwest Fish

Salmon, trout, lamprey, sculpin, redbreast shiner, shad, sturgeon, candlefish and the large-scale sucker who spend their lives in coastal streams and rivers in the Pacific Northwest can cause Salmon Poisoning.

Salmon Poisoning is caused when the fish is infected with a parasite called *Nanophyetus salmincola*. The parasite itself is relatively harmless but the parasite can be infected with a rickettsial organism called *Neorickettsia helminthoeca*. This microorganism is what causes salmon poisoning.

**Salmon Poisoning is fatal if not treated within days of infection.**

Common signs of salmon poisoning include:

- Vomiting
- Lack of Appetite
- Fever
- Diarrhea
- Weakness
- Swollen Lymph Nodes
- Dehydration

Deep freezing kills the parasite and the microorganism which makes the raw fish safe to feed. The Oregon Veterinary Medical Association recommends freezing for at least 2 weeks after the fish is frozen solid. The freezing period does not start until the fish is frozen solid.

As waters warm up further north, including in Alaska, the possibility of fish that have traditionally been considered safe causing Salmon Poisoning is becoming a concern.

### 3.) **Scombroid Fish Poisoning**

Scombroid Fish Poisoning is caused by histamine contamination, occurs within a few hours of eating, and resembles an allergic reaction. It occurs in members of the Scombridae fish family which includes tuna, mackerel, skipjack, bonito, mahi mahi, bluefish, marlin, and escolar.

It is caused by improper refrigeration of raw fish and poisoning can occur even in cooked or canned fish. It can be prevented by prompt and continuous refrigeration of raw fish and not leaving raw fish out at room temperature for extended periods of time.

Since raw fish is one food item that many dogs prefer to eat frozen or partially frozen, feeding fish frozen or partially frozen can help prevent Scombroid Fish Poisoning.

Remember though, unless you have handled the fish from catch to feeding, improper refrigeration and histamine contamination could occur at any time.

### 4.) **Farmed Fish**

Farmed fish are fed inappropriate and many times contaminated diets, are exposed to more pollution and contain more contaminants than wild-caught fish. Commercial fish farms also harm the environment. It is not advised to feed farmed fish.

### **Freezer Burnt Meat**

Freezer burnt meat is fine to feed as long as it has been not been allowed to thaw and spoil. It may not have much smell to it so it may not be as appetizing to your dog. Humans don't eat freezer burnt meat because of the change in taste and texture. Dogs don't care.

### **Frozen Meat**

Feeding frozen and partially frozen cuts of meats and organs is fine. In fact, some dogs will only eat certain organs or prey animals, such as fish, when it is frozen or partially frozen. This is typically a texture issue.

Feeding frozen or partially frozen can also aid in the tooth cleaning benefits of raw by prolonging chewing time.

Some dogs do not do well with foods that are not completely thawed though.

Some issues with frozen/partially frozen foods include:

- Though infrequent and usually a sign of an underlying tooth problem, slab fractures may occur when a power chewer chomps down hard on a bone or thick piece of meat that is frozen solid.
- Getting frustrated with the harder chewing and trying to swallow the food whole.
- Regurgitation due to the food not sitting well in the stomach.
- Aversion to the texture of frozen or partially frozen foods.

Use your dog as a guide as to whether or not you feed foods frozen or partially frozen.

## **Ground & Chopped Meat**

Prey model raw is the feeding of whole cuts of meat and/or whole prey animals. Ground and chopped meat should not make up a substantial portion of the diet for a healthy dog. Ground and chopped meat doesn't give the dog any mental stimulation or the teeth cleaning benefits that whole meats do.

This isn't to say that prey model raw feeders never feed ground and chopped meats. Some reasons for feeding ground and chopped meat may include:

- A very good sale price or obtaining free meat.
- Not being able to find enough animal variety in whole food form.
- Medical reasons such as a toothless dog or a dog with jaw/tooth problems that can't chew through even the softest of bone, the dog does not digest bone well in whole form, etc.
- The only way to get a dog to eat organs or take a pill. The organs/pill can be hidden in a bit of ground meat.
- The owner going away and the boarding facility/dog sitter/person watching the dog doesn't feel comfortable feeding whole cuts.

What is included in the ground meat will depend on the source it is bought from.

- Grocery store ground will be meat and varying amounts of fat only.
- Butcher ground will be meat and varying amounts of fat only unless the butcher is making "pet food." Pet food can include bones, organs and other parts of the animal.
- Ground from online raw suppliers can be meat and fat only, organ only, meat and fat and bone, etc.
- Self-ground can be whatever the raw feeder wants to include.

There are some potential problems with feeding ground meat.

- It can be contaminated with more bacteria than whole cuts of meat. This is because there is more surface area for the bacteria to grow on in ground meat and during the grinding process any bacteria will be spread throughout the meat.
- Some places add small amounts of bleach or other substances to ground meat to prevent bacterial growth and keep the meat from browning as it ages. The substances cook out of the meat. If you do feed ground meat from a grocery store or butcher shop, ask about the use of these and do not feed "treated" raw ground meat.
- With ground "pet food" from a butcher or ground mixes from an online supplier, you may not know the percentages of meat, bone and organ.
- With home grinding, most grinders can only do very soft chicken bones and it can take a very long time to grind. And it is messy.
- Some nutrients and minerals start breaking down as soon as the meat is ground. Taurine is one of these.

## **Horses & Other From-The-Farm Livestock**

Sometimes you can get animals straight from farms and ranches. These may be culled animals, sick animals, injured animals, animals that died unexpectedly or animals that were intentionally killed.

Livestock intended for consumption should not have been euthanized chemically, been fed hormones or been routinely given antibiotics.

Some popular animal supplements (such as MSM) are not meant to be fed to animals intended for food consumption so ask what supplements were given and do some research on these supplements to see if they are approved for livestock meant for consumption.

Ask about medications given recently and do **not** feed any animal that was killed or died prior to the minimum amount of time a particular medication needs to safely clear the system.

Do **not** feed any animal given medication not for use in livestock intended for consumption.

Exercise caution when feeding an animal that died of unknown causes or was sick. Stillborn animals and very young animals that die are typically fine to feed.

After butchering, if something doesn't look or smell right, do not feed.

## **Marsupials**

Marsupials are pouched mammals. This group includes kangaroos, koalas, Tasmanian devils, wombats and opossums.

Some marsupials are carnivorous, such as the Tasmanian devil. Some are omnivorous, such as the North American opossum and Brushtail possum. Some are herbivores, such as the kangaroo, wombat and koala.

If you have an opportunity to feed marsupials, follow the guidelines on what is appropriate to feed to your dog.

## **Old Meat**

Old meat is fine to feed as long as it has been not been allowed to thaw and spoil. It may not have much smell to it so it may not be as appetizing to your dog. If you have thawed the old meat out and notice an off-smell to it, you may want to throw it away. Even meat that is a decade or more old is fine to feed if it has been properly stored.

## **Poultry, Waterfowl & Eggs**

Any bird can be fed to your dog as long as it is not too small for your dog. The bones of some large birds may be too hard for some dogs to eat. Birds can be fed whole with the head and feet still attached and with or without feathers.

Raw eggs are fine to feed and can be fed whole in the shell. Egg shell pieces may not fully digest so some pieces may be seen in the stool. Egg shell contains calcium and is frequently ground and used for the calcium requirement in home-cooked diets.



## Raccoons

Raccoons can carry *Baylisascaris procyonis*, a very nasty roundworm that can be passed to both you and your dog. Infection with the larval form of this roundworm is serious and is often fatal. There is no known treatment. Raccoons also carry other parasites and scavenge through garbage. Feeding raccoon meat is not advised.

## Roadkill

Check your local laws for regulations on picking up roadkill. Where legal to pick up, it is recommended to freeze roadkill for at least one month. Use common sense when deciding whether or not a roadkilled animal is safe to feed. For example, if you passed that spot an hour ago and the roadkill wasn't there, it should be safe. If it has been there for a while, smells or is starting to bloat, leave it be. Follow the guidelines on what is appropriate to feed to your dog when deciding which animals to pick up.

## Shellfish & Other Seafood

Shrimp, crab, clams, oysters, eel, etc. are typically fine to feed though some dogs can be allergic to shellfish just like some people can be. Depending on the location, crab may be precooked after it is off-loaded and would not be appropriate. Shells would count towards bone content.

## Whole Prey

Whole prey is simply a prey animal that has not been butchered into smaller pieces. It is intact. It may have the guts removed or it may not. It may be plucked or skinned or descaled or it may not be. Plucking, skinning or descaling is not necessary.

One thing to look for on whole prey is **ticks**. If you see ticks, either manually remove the ticks or skin the animal. Even dead ticks can spread disease.

Skulls can be fed though some skulls are hard enough that they need to be cracked so the dog can get to the brains and tissues inside the cavity.

When feeding whole prey remember the **know thy dog!** rule for safe prey size and safe bones.

Whole prey can also be fed frozen or partially frozen if your dog can handle frozen meat.

## Wild Boar/Hog

Wild hogs/boars can carry a form of trichinosis that is very resistant to cold. If you choose to feed raw wild hog/boar meat, it should only be fed after a very long period of being frozen solid. The colder the climate the hog lived in, the longer it would need to be frozen. The freezing period does not start until the animal is frozen solid. It is typically recommended that the meat be thoroughly cooked and not fed raw.

## Wild Game

Wild game may be fed fresh but it is recommended to deep freeze for at least 24 hours to kill any parasites the animal may have. Two weeks to one month is considered better. The freezing period does not start until the animal is frozen solid.

1 month freezing period from: <http://www.uaf.edu/files/ces/publications-db/catalog/hec/FNH-00262.pdf>

Always inspect wild game before feeding. Look for bullet fragments or buckshot. Examine organs. If anything doesn't look right, err on the side of caution and do not feed.

If you see ticks either skin the animal or manually remove the ticks. Even dead ticks can spread disease. If a game animal was infested with ticks, you may want to discard the meat as this can be a sign of overall ill health.

### **Wild Rodents & Rabbits**

Wild rodents such as mice, squirrels, rats, etc. and rabbits can be infested with parasites, such as tapeworm, and diseases. Always inspect wild rodents and rabbits before feeding. Examine organs. If anything doesn't look right, err on the side of caution and do not feed.

Freeze for at least one month before feeding. The freezing period does not start until the animal is frozen solid.

1 month freezing period from: <http://www.uaf.edu/files/ces/publications-db/catalog/hec/FNH-00262.pdf>

Domestic feeder rodents can be purchased from several sources including reptile suppliers.

## ~ Getting Started ~

### **Find Sources Before You Start**

Finding affordable sources before you start and seeing what kind of organ variety is available locally makes feeding prey model raw much easier.

- Ethnic markets typically carry a greater variety of prey animals and organs.
- Check local meat processors, butcher shops and food co-ops.
- Talk to hunters to see if they have any freezer-burnt or old game they need to get rid of to make room for new kills.
- Talk to neighbors and let them know you are interested in any freezer-burnt meat or raw, unseasoned meat they are planning to throw away.
- Post on Craigslist or other online boards.
- Check grocery store ads for meat sales. Pay special attention to expiration dates on meat and find out when meat at the expiration date goes on sale. Don't be afraid to ask for a steeper discount on meat that is expiring.

### **Preparing & Storing Meals**

If you prepare raw meals ahead of time, it makes raw feeding just as quick and easy as pouring food out of a bag. All you do is remove a couple of days of food from the freezer, thaw it in the fridge and feed.

#### **Freezer Prep**

- Cut the meat into the proper-sized portions (a digital kitchen scale comes in very handy).
- Put the portions into a plastic zip-close bag.
- Label each bag with the weight, type of meat and cut (this way you know if it has bone or not).

A separate freezer just for dog food comes in handy so you can stock up on sales or get bulk discounts.

#### **Refrigerator Storage**

When storing meat meals in the refrigerator, do not store in air-tight containers. This can allow bacteria to grow which can cause problems later on. Instead, store in a bowl or plate with sides. You can leave it uncovered or cover loosely with wrap. If you store in plastic bags, do not seal them completely shut.

### **Starting A Prey Model Raw Diet**

Going "cold turkey" is the best way to start a raw diet.

- Feed your dog its normal food.
- Wait at least 8 hours (12 – 24 hours is even better).
- Start feeding prey model raw.

If starting a puppy, introduction of new proteins and organs can be done at a faster pace. The younger the puppy, the less time it has been kibble fed and the easier it is for its body to get used to raw food.

An adult dog can also be transitioned at a faster pace if you think it can handle it. This is a case of **know thy dog!** But remember if you move too quickly the result may be gastrointestinal problems such as diarrhea.

## **Keeping A Journal**

Keeping a raw journal is invaluable when starting prey model raw. It is a way to track what went into your dog and what came out so you can better understand how different ratios of meat, bones and organs affects your dog so there won't be any surprises later on.

This can be something as simple as a notebook where you write down what you fed each day and any instances of loose poop, diarrhea and/or vomiting. Or it can be a fancy computer spreadsheet where you track cuts of meat fed, amounts fed, bone percentages, etc.

## **The 1st 2 Weeks - Chicken**

Chicken is considered a bland meat that is easy on the stomach and it is full of edible bone so it is the starting point for most raw feeders.

### **How To Feed Your Dog Chicken**

- Take a whole chicken.
- Cut into appropriate-sized portions for your dog.
- Feed.

In the beginning, don't worry about proper bone and meat percentages or feeding organs. The focus right now is to get your dog's digestive system used to raw meat and bone. When you feed whole chicken, the kidney is with the backbone so your dog will be getting a little organ.

Chicken is very bony but this extra bone helps make the transition to raw food smoother since any loose stool that may be associated with such a drastically different diet gets firmed up by the extra bone. [Average bone percentages](#) for chicken can be found in the "Bones" section.

Some dogs may need to have some of the skin and fat removed at first to form a firm stool. Once the stool has firmed up, gradually remove less and less of the skin and fat until you remove none. Let the stool be your guide on how much fat and skin is too much.

It may take about 1 week for your dog to consistently start forming firm, normal stool. Do not move on to a new protein until every stool has been firm and normal for 1 week.

If your dog has never had a loose stool, it is still a good idea to wait a full 2 weeks before introducing a new protein.

## **Alternatives To Chicken**

There is nothing that actually says you must start with chicken or with any particular meat at all. Chicken is preferred because it is easy on the system, is loaded with stool firming edible bone, is cheap and easy to get.

Because cooking alters the chemical makeup of food, you may find that your dog that has an allergy or intolerance to the chicken in commercial dog food will be able to eat raw chicken. Dogs can also be allergic or intolerant to the feed an animal is fed so switching meat brands can help.

If raw chicken is out, you can try feeding turkey. Turkey is also a fairly easy on the system meat though some dogs may have a harder time eating some of the bones in turkey. Turkey can be harder to find, is more expensive and finding affordable turkey that hasn't been enhanced can be next to impossible in some areas.

[Average bone percentages](#) can be found in the "Bones" section.

## **Picking New Proteins**

Once your dog has adjusted to eating raw chicken, or whatever protein you started with, how do you decide what to transition to next? Since red meat has more nutrients than poultry, red meat is the logical new protein. This could be pork, beef, bison, rabbit, goat, etc.

## **Introducing New Proteins**

When introducing a new protein, always transition slowly and keep the total amount fed and bone content the same. To keep the bone content the same without feeding more food, you may need to feed bonier parts of your old protein, especially if you are introducing a protein with little edible bone like beef. For example, you may need to feed chicken back instead of breast. As always, monitor the stool and adjust the diet accordingly. If the stool is too firm or bony or your dog appears to be constipated, feed less bone and more meat.

Over at least a one week period, add in a little of the new protein each day while decreasing the amount of the old protein until your dog is eating 50% old protein and 50% new protein. By adding such a small amounts of the new protein each day, the stool should remain firm during the transition.

If the stool does become loose, go back to feeding the last combination of old and new proteins that produced firm stool. After a couple of days of normal stool, add in half the amount of the new protein that you did before and see how the stool looks and go from there.

During a transition to a new protein, you may need to remove some of the fat and skin just like you did with chicken. It all depends on how your dog does.

Once your dog is eating 50% new protein and 50% old protein and has had normal stool for a one week period, you can introduce the next new protein.

Then you can transition to the next new protein until your dog is eating 1/3 of the 1st protein, 1/3 of the 2nd protein and 1/3 of the new protein and has had normal stool for a one week period.

## **Introducing Organs**

After your dog is eating 3 proteins and producing normal stool, you should start adding organs.

The introduction of organs is a little different than it is with proteins. The introduction is done extremely slowly with a wait in between to see how the stool is affected.

Some dogs hate raw organs and for these dogs, there are a few things you can try:

- Lightly sear with less sear each time
- Sprinkle with garlic, parmesan or dog-safe seasonings
- Feed frozen
- Puree and feed
- Mince and mix with ground meat
- Freeze-dry
- Dehydrate
- When all else fails, shove down the dog's throat though hopefully it won't come to that

Some dogs love organs though and will happily eat them with no fuss.

Some dogs can eat a week's worth of organs in a single meal. Some dogs may need to have the organs spread out in 3, 4 or 5 meals. Some dogs need some extra bone when fed organs no matter the amount feed. The stool will tell you what your dog needs when it comes to eating organs.

## **Liver**

Liver is the 1st organ to introduce and makes up 2.5% – 5% of the prey model raw diet with 5% being considered ideal. Some dogs may not be able to tolerate the full 5% no matter what you do.

The easiest way to feed liver is to freeze it and shave off one paper thin slice. Feed that one paper thin slice then wait a day. If the stool is normal then the next day, feed two paper thin slices of liver and wait a day. If the stool is normal then the next day, feed three paper thin slices of liver and wait a day. Continue to do this until the stool becomes loose or you reach 5% of the weekly liver portion for your dog.

If your dog's stool started to become loose before you reached 5%, the last amount of liver you fed that produced normal stool is the maximum amount of liver you want to feed in a single day. Use this to figure out how many meals a week you need to feed liver.

Do not introduce anything new until your dog is eating its full portion of liver and has normal stool for one week.

## **Non-Liver Organs**

Introducing other non-liver organs is the next step.

Non-liver organs make up 2.5% – 5% of the prey model raw diet with 5% being considered ideal. Your dog should ideally be fed a variety of non-liver organs from a variety of prey animals. Organs can be hard to find though. If you can only find one type of non-liver organ, that organ will make up the full 5% of the non-liver organ portion of prey model raw.

To introduce a new organ, follow the steps you took to introduce liver and to figure out how often per week to feed the non-liver organs. Do not introduce anything new until your dog is eating its full portion of the non-liver organ and has normal stool for one week.

## **After Organs**

Your dog is now happily eating three different proteins, liver and a non-liver organ or two. The stool looks good, firm but not too hard. What's next?

If you haven't already achieved the ideal percentages of bones, meat and organs, experiment with different combinations of bone-in meals, boneless meals and organs to achieve 80% – 85% meat, 10% – 15% bone, 2.5% – 5% liver and 2.5% – 5% other organs in a one week period while keeping the stool looking good. Keep introducing new things into the diet. New proteins, new organs, organs from a variety of prey animals, whole prey, animal heads, etc.

Now that you and your dog are getting to be pros at this raw food thing, you know not to panic over a little loose stool, a day of diarrhea or the occasional stomach upset.

Think back to when your dog was on kibble and you'll probably realize your dog had these same little upsets happen then too and you didn't get overly worried.

Think about what you fed your dog that may have caused the upset. Was it a new food, more food, more organs, a fatty piece of meat, etc.? Did your dog maybe get into something it shouldn't have, get treats from other people it doesn't normally get, etc.? Did your dog exercise more than normal, become stressed, etc.? Was it hot out? All kinds of things can cause gastrointestinal upsets, not just food.

## ~ Grinding ~

### **Reasons To Grind**

Prey model raw involves the feeding of whole cuts of food or even whole prey when available/feasible. However there are reasons why an animal can't eat this style of food. These reasons are typically medical in nature and can include a lack of teeth for chewing on bone, an inability to completely or easily digest bone, jaw problems, esophageal issues such as megaesophagus, etc.

Our dog has megaesophagus and can no longer eat traditional prey model raw. She developed aspiration pneumonia in November 2019 and we had to change the way she eats. We bought a grinder and have been grinding her food ever since. She still eats 80% meat, 10% bone, 5% liver, and 5% non-liver organ but instead of chewing on her food, she's eating everything in ground form.

### **Why Grind Pet Food Yourself?**

There are many commercially available, pre-ground raw foods on the market now. These commercial foods come in frozen and freeze-dried forms. The freeze-dried forms have to be rehydrated with water before feeding. Many of these foods are made with vegetables and follow the BARF, or Bones And Raw Foods, diet and are not appropriate for a prey model raw diet. Some butchers grind raw food for animals. These may follow the prey model raw diet percentages, may not contain vegetables but not follow the prey model raw diet percentages or may follow the BARF diet. These pre-made foods are typically expensive when compared to doing it yourself and may be cost prohibitive unless you are feeding a small dog or a cat.

Aside from the price of pre-made raw, another reason to grind your pet's food yourself is having complete control over the quality and freshness of the meat and the percentages of meat, bone, and organs that the food contains. If you source the meat yourself, you know exactly where it came from, how fresh it is, how it was stored, and when it was ground. You know how much meat, bone, liver, and other organs your pet is eating.

### **What Do You Need To Grind?**

To grind raw pet food, you need an electric grinder that is strong enough to grind bone. A grinder that attaches to a stand mixer or a hand grinder will not be strong enough.

You will need tubs or bins that fit under the opening of your grinder to catch the ground meat. These should be something that can be easily cleaned. You can also use disposable aluminum pans if you can't find any tubs or bins that will work.

If you have been feeding prey model raw, you likely already have a kitchen scale. If you are new to prey model raw or don't have a kitchen scale, you will want one for weighing out the ground food.



Food safe gloves such as latex or nitrile are nice to have. These protect your hands from the raw meat and allow you to easily go from handling raw meat to touching something you don't want to get raw meat on without having to wash your hands just by taking the gloves off.

A lubricant of some kind will be needed. This will probably be a food safe silicone spray as opposed to vegetable oil. This lubricant is used on parts such as the auger and grind plates to help fight oxidation during storage and is also used prior to grinding.

Zip-close bags or other food storage methods to hold the food once it is ground.

### **How To Pick A Grinder**

To pick a grinder, you need to determine what size grinder you need. The smaller the grinder, the smaller the feeding tube, the less horsepower it will have, and the longer it will take to grind larger amounts of food. Conversely, the larger the grinder, the larger the feeding tube, the more horsepower it will have, and the less time it will take to grind larger amounts of food. A smaller grinder may not be powerful enough to grind bone. Grinding is loud, messy, and time consuming so the more food you can grind in a single session, the better.

Grinder size is determined by the size of the grind plate. The grind plate is the round disc that has holes in it and sits at the end of the grinder neck or throat where the ground meat comes out. The grind plate gives the ground product its final size. The smaller the holes in the grind plate, the finer the ground product will end up being and the larger the holes, the coarser the ground product will end up being.



*Raw lamb coming out of the coarse grind plate of our grinder.*

You'll also need to factor in how much you'll be grinding when picking a grinder. The more food you are able to grind at one time, the less time you'll spend grinding so a bigger grinder is an advantage. If you have a large dog you have to grind for or multiple smaller animal, the bigger the grinder, the better.

It is also important to think about the meats you will be grinding. If you will be grinding cuts of meat that have tough sinew, tendons, and ligaments then you will want a more powerful grinder than if you were just grinding tender cuts.

Very few grinders are warranted for grinding bones but even these should be able to handle soft bones like chicken and rabbit as long as they have enough horsepower. Grinders that are warranted for grinding bone will be more expensive than grinders that are not warranted for bone.

The readily available meat grinder sizes are:

- #5: 2-1/8" diameter grind plate
- #8: 2-1/2" diameter grind plate
- #12: 2-3/4" diameter grind plate
- #22: 3-1/4" diameter grind plate
- #32: 3-7/8" diameter grind plate
- #42: 5-1/16" diameter grind plate

### **What Size Grinder Did We Choose?**

We chose a #12, 3/4 horsepower commercial grinder from Cabela's. Personally, I would not go any smaller than this size and horsepower of grinder. We looked into other grinder brands, including brands that were warranted to grind soft bone but all of these grinders required shipping. We needed a grinder quickly because of our dog's aspiration pneumonia that was caused by megaesophagus so we needed a grinder that we could pick up locally. It is capable of grinding 8-10 pounds of meat per minute and has had no problem grinding bashed up chicken bones.

We considered getting a #22, 1 horsepower grinder from Cabela's but the grinder needed to be something that was light enough to be easily handled by both of us. The #12 grinder we bought weighs 52 pounds and the #22 weighs 64 pounds.

Because of the weight of the grinder, we ended up buying a countertop-height rolling kitchen cart to keep the grinder on. It has a basket and shelf so we can store the larger grinder parts and other items we use during grinding on it. Two of the wheels lock so we can wheel the cart up to the counter, lock the wheels for safety, and keep the grinder on the cart while we grind.



*Meat grinder sitting on a rolling, countertop-height kitchen cart.*

### **The Grinding Process**

The grinding process will vary depending on how you are feeding your pet, your grinder, your storage methods, and your experience level among other factors.

Will your pet be eating bone with every meal, once a day, every other day? Is your grinder warrantied for grinding bone or just boneless meat? Will you be portioning the ground food into individual meals, daily portions, weekly portions? Have you used a meat grinder before or are you new to grinding?

These factors will affect how you prepare your meat cuts for grinding, how you prepare your grinder for grinding, how you grind the meats, how long you spend portioning out the ground food for freezing, and how streamlined the grinding process will be.

If you are new to grinding, you will likely change your grinding process multiple times as you become more familiar with it. You'll figure out what changes to make to speed up the process from prep to clean up. The only thing that can never change with your grinding process, no matter how much experience you have, is following the instructions in your grinder's manual. Following these instructions will not only keep you safe during the grind but will also give you the best results and extend the life of your grinder. Grinding is a big investment not only in the money spent on the grinder but also in the amount of time you spend grinding pet food so make sure you get the most out of your money by following these instructions.

As you start feeding your pet, you may find out that you have to tweak how you feed. Your pet may do better with bone once a day instead of every meal or every couple of days. Your pet may need smaller meals or bigger meals. Always adjust your pet food to match the needs of your pet.

### **Preparing The Meat**

The first step in the grinding process is preparing your meat cuts for grinding. Your grinder manual will tell you exactly how to prepare the meat and the amount of prep work you need to do will depend on the size grinder you buy and if it is warrantied for bone. Many grinders recommend you cut boneless meats into cubes of a certain size so the meat can make it down the feed tube without jamming. The cube size will be dependent on the size of the grinder because the bigger the grinder, the larger the feed tube.

Some grinders are warrantied to grind soft bones like chicken bones. If your grinder is not warrantied to grind bone, smashing these bone-in cuts to break up the soft bone prior to grinding will make it easier for the grinder to do its job. If your grinder is warrantied to grind bone-in cuts, follow the manufacturer's instructions for preparing these cuts. You may be instructed to break the bones up a bit or, if the bone-in cuts will fit down the feed tube, you may be instructed to feed the cuts into the grinder whole.

Once you have prepared all your cuts for grinding, it's time to get them cold. Grinders work best if the meat and bone are "crispy" cold. "Crispy" is not frozen but is at a stage where you would be able to cut the meat with a sharp knife using a bit of force behind the knife. The cubes may have some frosty-looking areas on them or thin sheets of ice that come right off them. Never try to grind frozen meats or bones because this can cause the motor to overheat.

You can either prepare your meats ahead of grind day or you can prepare your meats the day you grind.

If you prepare your meats on grind day, put the prepared meat into the freezer until it is “crispy” cold. The amount of time to reach this stage depends on your freezer. It could take as little as 15 minutes.

We prepare our meats ahead of grind day so we freeze them in a single layer in gallon size zip-close bags. Freezing them in a single layer allows for even thawing on grind day. We used to just fill gallon zip-close bags with the cubed meats and freeze but we found that there were huge chunks of frozen meat in the middle and the cubes of meat on the outside were too thawed out so it made grind day extra long. By freezing the cubes in single layers, everything thaws at the same rate and makes grinding much quicker.

For bone-in cuts, always keep track of the type, number, and weight of each type of bone-in cut you will be grinding. 30 chicken wings, 6.5 pounds. 30 chicken thighs, 15.75 pounds.



*A long plastic tote holding bags of raw, cubed meat where the meat has been frozen in a single layer.*

### **Preparing The Grinder**

The grinder also needs some preparation before you grind. I visited many grinder forums and found two pieces of advice that were consistent on all of these forums.

Lubricate the parts that come in contact with the meat during the grinding process. These parts are the feed tube, the neck/throat where the auger sits, the auger, the cutting blade, and the grind plates. The hopper does not get lubricated. A very light coat of your food-safe lubricant is all that is needed. Let the lubricant dry completely before putting the grinder together.

Grinders work best if certain parts are very cold. These parts are the feed tube, the neck/throat where the auger sits, the auger, the cutting blade, and the grind plates. The same parts that get lubricated like to be cold. We put these parts in the chest freezer the night before we grind. Our grinder also has cold packs that are made to fit on the neck/throat to help keep everything colder longer. We keep these cold packs in the chest freezer in between grinds.

The one part you do not want to put in the freezer is the hopper. The hopper is what holds the prepared meat during grinding. If you were to put the hopper into the freezer, you run the risk of having the meat freeze to the hopper surface while you are trying to push it down the feed tube. Keep the hopper at room temperature.



*Cubed meat sitting in the hopper of our meat grinder.*

### **Things We Have Found Helpful On Grind Day**

Store your prepared meats in leak-proof bins or totes on grind day. There will be some moisture that comes off the bags or whatever you have used to store your prepared meats in as they sit and bags can leak. Leak-proof bins or totes help protect your flooring from moisture and meat juice. They also make it easier to move the prepared meats from the freezer to the grinding location.

Place a garbage can by the grinder, especially if you are using disposable storage containers to store the prepared meat. This way you can throw empty disposable storage containers right into the garbage can after they have been emptied into the hopper.

Have plenty of bins to hold the ground meat. As you gain experience grinding, you will be able to estimate pretty accurately how much ground meat your bins can hold and how many bins you will need for each grind.

If you have more than one person, have one person grind while the other person portions out the finished pet food. This cuts down on the amount of time the ground meat is exposed to the air and also cuts down on the amount of time your grind session takes. The portioning of the meat will take significantly longer than the actual grinding. How you portion will depend on how your pet needs to be fed.

Cover any counter space where raw meat will sit. We have found that clean-up is easier if we put down aluminum foil where meal portions will sit prior to bagging up.

Once you start grinding, make sure you give your grinder a break every so often. Your grinder's manual will tell you how often you should shut the grinder down to let it cool off. Make sure to give it more frequent breaks when grinding bone because the motor does have to work harder.

The most important thing in grinding is following the instructions in your grinder's manual to the letter from preparation to clean up. Know your manual. Know the instructions so well, you do not need to refer to the manual during the grind. Heed the warnings and cautions. Grinders are dangerous if not used properly and all grinders are different.

### **Grinding Pet Food**

Once you have your meats, grinder, and grinding area ready, it is time to start grinding. When grinding, you always start with the coarse grind plate.

If you are grinding both boneless and bone-in meats during the same grinding session, start with the boneless first. Even though our dog has megaesophagus, she is fine with coarse ground boneless meats. Bone-in meats need to be fine ground for safety. By grinding boneless meats first, we do not have to worry about bits of bone contaminating the meat and don't have to do a fine grind on the boneless meats. If you do need to fine grind boneless meats, do that before you start the coarse grind of the bone-in meats.

If you are grinding more than one type of meat, you can keep them separate by using separate bins or you can allow them to mix. If your pet is fine with eating mixed meats, when you are done grinding one type of meat you can start grinding another type right into the same bin if there is room in the bin. We keep our meats separate because as our dog has aged, she does better when she eats a higher percentage of lean meat and a lower percentage of fattier meat. By keeping the meats separate, we can make up meals that have more beef, venison, emu, and elk and less lamb and pork.

### **Grinding Boneless Meats**

Empty some of the cubed boneless meat into the hopper. Move the meat cubes into the feed tube using the stomper that was included with the grinder. Never reach into the feed tube or stick something other than the stomper into the feed tub if the grinder is plugged in. If you have to reach into the feed tube or stick something other than the stomper into the feed tube, shut the grinder off, unplug it, and make sure all moving parts have stopped. Our hopper will easily hold about 3 pounds of cubed meat.

Once meat is in the feed tube, turn the grinder on and keep feeding cubed meat from the hopper into the feed tube. Make sure the bin is positioned under the opening of the grinder where the grind plate is. Empty more meat into the hopper as needed. Do not let the grinder run empty.

As the meat starts to pile up in the bin, used your gloved hands to push the meat to the back of the bin. Repeat this step as needed until the bin becomes full. Turn the grinder off and replace the full bin with an empty bin. Check the temperature of the grinder motor and give it a break if needed.

If your pet is fine with coarse ground boneless meat, a second person can start portioning the meat while the grind continues. If your pet needs fine ground boneless meat or you are grinding alone, set the bin aside and continue the coarse grind.

If you need to finish with a fine grind, once all the boneless meat is coarse ground, turn off your grinder, unplug it, make sure all the moving parts have stopped, and remove the coarse grind plate. You will also remove the auger at this time and clean out anything that has stuck in the auger and the neck/throat. We rarely have much that needs to be cleaned and it is usually fat or sinew. Put the auger back in and put in the fine grind plate. Run the coarse ground boneless meats through the fine grind plate. If you have two people, once a bin is full of fine ground meat the second person can start portioning meals.

### **Grinding Bone-In Cuts**

Start with the coarse grind plate. If you are grinding both boneless and bone-in cuts, always grind the boneless cuts first.

If your grinder is not warrantied to grind soft bone, you will feed the smashed bone-in cuts just like you did the cubed boneless meats. Your grinder will need more frequent breaks with bone-in cuts than it did with boneless meat. Make sure to monitor the grinder motor temperature.

Once all your bone-in cuts are coarse ground, switch to the fine grind plate. You will likely find more waste stuck in the auger and the neck/throat of the grinder. We always have some bits of cartilage and chicken fat but never have a lot of waste.

Fine grind the coarse ground bone-in cuts. Once the fine grind is done, your bone-in cuts are ready for portioning. Our grinder does an excellent job grinding chicken bone and cartilage. The most we can feel when we rub the bone-in pet food between our fingers is a fine gritty texture but mostly we just feel ground meat.

Portioning out bone-in meals can be a bit tricky at first. This is why you should keep track of the types of bone-in cuts, the weight, and the number of each bone-in cut you ground. If you ground whole chickens, the finished pet food would be approximately 32% bone. If you ground leg quarters, the finished pet food would be approximately 27% bone. If you ground chicken wings, the finished pet food would be approximately 46% bone. If you ground a mix of chicken thighs and chicken wings, you would need to know the weight of all the chicken thighs and the weight of all the chicken wings and figure out the bone percentage in the finished pet food.

The way we do our bone-in cuts is to grind mostly bony portions that will have a high percentage of bone and calculate how much of the mostly ground bone to add to boneless meats.



*Freshly ground raw boneless chicken in a bin being portioned out by weight. The portions on the aluminum foil have ground bone-in chicken on top.*

### **Grinding Organs**

We do not have to grind organs but if we did, we would not use a meat grinder. There are a couple of ways to grind organs.

You could use a food processor or blender. This would make a liquid that you could freeze into individual portions. Depending on the portion size, you could use ice cube trays or small zip-close bags. When it comes time to feed, thaw the portion out and either let your pet drink it or mix it in with the food for that day.

You could freeze the organs solid and grate them with a microplane grater. Be very careful because graters will easily grate your skin as well as the organs. Freeze the grated organs into the appropriate portion size. When it comes time to feed, thaw the portion out and either let your pet eat it or mix it in with the food for that day.

### **Storing Ground Pet Food**

Store freshly ground pet food in the freezer. Nutrient loss through oxidation starts happening as soon as the meat is ground. Freezing the ground food as soon as possible helps keep this nutrient loss to a minimum.

### **Things To Remember**

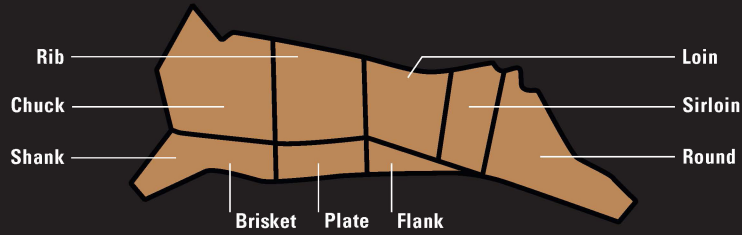
- Follow the grinder manual instructions.
- Prepare your meats according to the grinder manual instructions.
- Lubricate the appropriate grinder parts with food-safe lubricant prior to grinding.
- Chill your prepared meats prior to grinding.



- Chill the appropriate grinder parts prior to grinding.
- Always start with the coarse grind plate.
- Grind boneless meats first.
- Grind bone-in cuts after all boneless meats are ground if you are grinding both in the same session.
- Always fine grind bone-in cuts for safety.
- Freeze ground pet food as soon as possible.
- Clean and store your grinder according to the grinder manual instructions.
- It may seem like a lot of work but, with experience, it isn't that bad!

# Beef Made Easy<sup>®</sup>

## Retail Beef Cuts and Recommended Cooking Methods



IT'S WHAT'S FOR DINNER.<sup>®</sup>



### Chuck



CHUCK 7-BONE POT ROAST



CHUCK POT ROAST Boneless



CHUCK STEAK Boneless



CHUCK EYE STEAK Boneless



SHOULDER TOP BLADE STEAK



SHOULDER TOP BLADE STEAK Flat Iron



SHOULDER POT ROAST \* Boneless



SHOULDER STEAK \* Boneless



SHOULDER CENTER \* Ranch Steak



SHOULDER PETITE TENDER \*



SHOULDER PETITE TENDER MEDALLIONS \*



BONELESS SHORT RIBS

### Rib



RIB ROAST



RIB STEAK



RIBEYE ROAST Boneless



RIBEYE STEAK Boneless



BACK RIBS

### Loin



PORTERHOUSE STEAK



T-BONE STEAK \*



TOP LOIN STEAK \* Bone-in



TOP LOIN STEAK \* Boneless

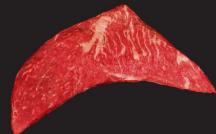


TENDERLOIN ROAST \*



TENDERLOIN STEAK \*

### Sirloin



TRI-TIP ROAST \*



TRI-TIP STEAK \*



TOP SIRLOIN STEAK \* Boneless

### Round



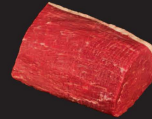
TOP ROUND STEAK \*



BOTTOM ROUND ROAST \*



BOTTOM ROUND STEAK \* Western Griller



EYE ROUND ROAST \*



EYE ROUND STEAK \*



ROUND TIP ROAST \*



ROUND TIP STEAK \*



SIRLOIN TIP CENTER ROAST \*



SIRLOIN TIP CENTER STEAK \*



SIRLOIN TIP SIDE STEAK \*

### Shank and Brisket



SHANK CROSS CUT \*



BRISKET FLAT CUT \*

### Plate and Flank



SKIRT STEAK



FLANK STEAK \*

#### Key to Recommended Cooking Methods

- Skillet
- Grill or Broil
- Marinate & Grill or Broil
- Stir-Fry
- Roast
- Stew
- Braise
- Pot Roast

\* These cuts meet government guidelines for "lean" and are based on cooked servings with visible fat trimmed.  
Lean is defined as less than 10 grams of total fat, 4.5 grams of saturated fat, and less than 95 milligrams of cholesterol per serving and per 100 grams (3.5 oz).

# PURCHASING PORK

## A Consumer Guide To Identifying Retail Pork Cuts.

Left: tenderloin  
Right: Canadian-style  
bacon



### CHOPS

Upper row (l-r):  
sirloin chop, rib chop,  
loin chop.  
Lower row (l-r):  
boneless rib end chop  
(Chef's Prime Filet™),  
boneless center loin  
chop (America's Cut™-  
1 1/4-1 1/2" thick-  
ness), butterfly chop.



### SHOULDER BUTT

Upper row (l-r):  
bone-in blade roast, boneless blade roast.  
Lower row (l-r): ground pork (The Other  
Burger®), sausage, blade steak.



RIBS Left: country-style ribs.  
Right: back ribs.



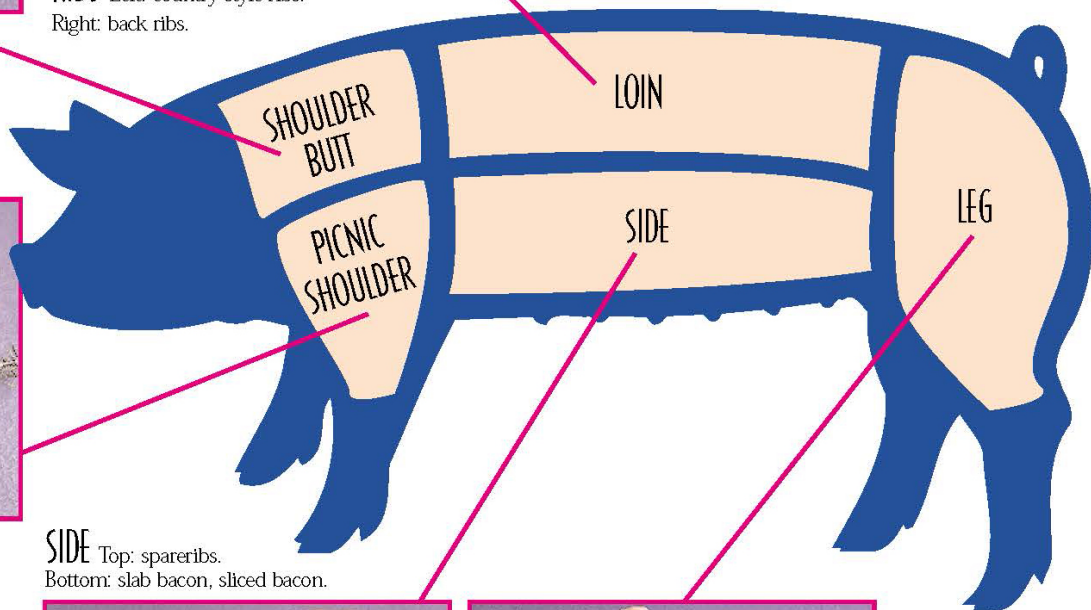
### ROASTS

Upper row (l-r):  
center rib roast  
(Rack of Pork),  
bone-in sirloin roast.  
Middle: boneless  
center loin roast.  
Lower row (l-r):  
boneless rib end roast  
(Chef's Prime™),  
boneless sirloin roast.

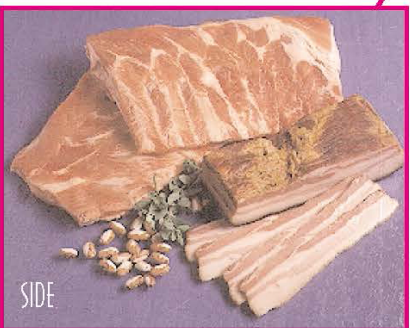


### PICNIC SHOULDER

Upper row (l-r): smoked picnic, arm  
picnic roast.  
Lower row: smoked hocks.



SIDE Top: spareribs.  
Bottom: slab bacon, sliced bacon.



### LEG

Upper row (l-r):  
bone-in fresh ham,  
smoked ham. Lower  
row (l-r): leg cutlets,  
fresh boneless  
ham  
roast.



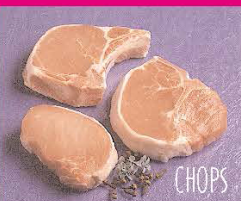
NATIONAL PORK BOARD AS IMPLEMENTED BY THE  
NATIONAL PORK PRODUCERS COUNCIL.  
©1997 NATIONAL PORK PRODUCERS COUNCIL

## THE MANY SHAPES OF PORK CUT LOOSE!

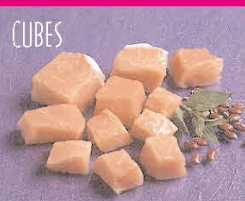
When shopping for pork,  
consider cutting traditional roasts into  
a variety of different shapes.



No fuss family dinner, holiday favorite.



Dinner, backyard barbecue or gourmet entree.



Great for labials, stew and chili.



Super stir fry, fajitas and salads.



Delicious breakfast chops and sandwiches.

## Leg



**Whole Leg**  
(Roast)



**Short Cut Leg, Sirloin Off**  
(Roast)



**Shank Portion Roast**  
(Roast)



**Center Leg Roast**  
(Roast)



**Center Slice**  
(Broil, Grill, Panbroil, Panfry)



**American-Style Roast**  
(Roast)



**Frenched-Style Leg Roast**  
(Roast)



**Boneless Leg Roast (BRT)**  
(Roast)



**Frenched Hindshank**  
(Braise)



**Sirloin Chop**  
(Braise, Broil, Grill, Panbroil, Panfry)



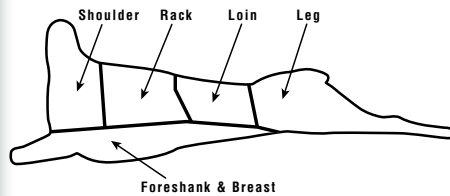
**Boneless Sirloin Roast**  
(Roast)



**Top Round**  
(Roast)

# American Lamb

## Cuts & How To Cook Them



## Loin



**Loin Roast**  
(Roast)



**Boneless Loin Strip (BRT)**  
(Roast)



**Loin Chop**  
(Broil, Grill, Panbroil, Panfry)



**Double Loin Chop**  
(Broil, Grill, Panbroil, Panfry)



**Tenderloin**  
(Roast)

## Rack



**Crown Roast**  
(Roast)



**Rib Roast**  
(Broil, Grill, Roast)



**Rib Chop**  
(Broil, Grill, Panbroil, Panfry, Roast)

**Frenched Rib Chop**  
(Broil, Grill, Panbroil, Panfry, Roast)

## Shoulder



**Square Cut Shoulder Whole**  
(Braise, Roast)



**Saratoga Roast**  
(Braise, Roast)



**Boneless Shoulder Roast (BRT)**  
(Braise, Roast)



**Blade Chop**  
(Braise, Broil, Grill, Panbroil, Panfry)



**Arm Chop**  
(Braise, Broil, Grill, Panbroil, Panfry)

## Foreshank & Breast



**Foreshank**  
(Braise)



**Spareribs (Denver Ribs)**  
(Braise, Broil, Grill, Roast)



**Riblets**  
(Braise, Broil, Grill)

## Other Cuts



**Lamb for Stew**  
(Braise)



**Ground Lamb**  
(Broil, Grill, Panbroil)



**Cubes for Kabobs**  
(Braise, Broil, Grill)



**AMERICAN LAMB BOARD**