

The Case AGAINST Raw Frozen Pet Foods

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For some 25 years Dr. Wysong has alerted the public to the dangers of exclusively feeding heat processed foods. Not only is nutrient value diminished by heat, but a spectrum of toxins are created. Additionally, the singular feeding of processed food has led to the spurious “100% complete and balanced” claim that is both logically and scientifically flawed. (This information is available from the non-profit Wysong Institute in the form of books, CDs and various articles).

Entrepreneurs have seized upon this information to create a spate of raw frozen (RF) foods to capture a market niche and to fill the demand from consumers wanting a raw alternative to standard heat processed canned, semi-moist and dried pet foods. This market trend, as with most others, may begin with some truth (raw food is the best food) but gets distorted, if not perverted, once economic opportunity enters the picture. This paper will examine the rationale of these products, their economics and dangers. A more intelligent and healthy alternative will be proposed.

Dangers

- 1. Weakened Pets And Highly Virulent Organisms** – A raw state and the presence of moisture in food provide the perfect environment for the growth of pathogenic organisms. Although prey foods in the wild often putrefy and are teeming with microorganisms, carnivores in the wild are immunologically adapted to these organisms and even benefit from the probiotic effects of some. On the other hand, domestic pets eating sterilized heat processed foods are immunologically compromised and are threatened by mutated and highly virulent pathogenic strains created by modern circumstances and antibiotic resistance. Freezing at appropriate temperatures puts pathogens in a state of arrest but does not eliminate them. Although all foods contain some pathogens, unless they are sterilized (requiring high heat or other measures that greatly diminish the nutritional value and create toxins), it is the load of these pathogens that must be of concern to consumers. RF foods are a potential reservoir and vector of large numbers of pathogens.
- 2. Producers With Only Kitchen Technology** – Because of the minimal technology required to produce a RF pet food, essentially anyone regardless of credentials or expertise can bring a product to market. All one needs to do is grind and mix ingredients in a kitchen, package and put in a freezer. There are no controls over the conditions in the kitchen, the quality of the ingredients or the method of freezing. All these factors can dramatically influence the nutritional value and pathogenic and toxic content of the food. But being in a frozen state hides these potential dangers and therefore poses a threat to both pets and the humans who handle the foods. John Doe can make a food under unknown conditions and with unknown ingredients, label, package, freeze and deliver to consumers or stores without one single control monitoring or impeding the process. Regulators may eventually examine the label if they happen to see it in a store (they will never see it if shipped directly to consumers) and object to some terminology or the like; but, all John needs to do is change the label and all will be well. The product could contain every manner of ingredient, be laced with virulent pathogens, and receive the aegis of regulators ... and into the market it goes.
- 3. Raw Frozen Foods Are Not “100% Complete”** – Many RF foods make (or imply) the same spurious 100% complete claim as heat processed foods and thus carry with them the same health dangers. Feeding any food exclusively, let alone a nondescript packaged food containing who-knows-what from who-knows-what manufacturing environment, is a bad choice if health and safety are of concern. (See [The Truth About Pet Foods](#) by Dr. Wysong).
- 4. Problems Are Ignored By Producers** – RF food pathogens include not only bacteria, but fungi, viruses and parasites. Toxins include those from molds (mycotoxins), bacteria and those created by oxidation. In our study of RF products in the stream of commerce, not one producer addressed these concerns with any technological know-how that we could discern, and most did not even acknowledge the problems potentially lurking in their foods.
- 5. Freezing Masks Inedibles** – Raw meat and organ tissue continues to use ATP (source of energy) until it is exhausted and the tissue enters a state of rigor. Endogenous enzymatic activity within the tissue continues to digest the muscle tissue (proteolysis), softening it until it becomes tender and develops the typical palatable taste. This process is retarded by cold. The freezing of properly aged meat presents few problems, however, any residual ATP present in the tissue during freezing will contract the muscle upon thawing resulting in a more unpalatable product. Mixed RF foods would hide this problem.

- 6. Free Radical Problems Masked** – Essential fatty acids and other health enhancing lipids are critical in the diet. Once foods are ground, mixed, exposed to air, light and pro-oxidants such as heme iron and other metals found in plant and animal tissue, the contained lipids are oxidized to chain reaction producing free-radicals, causing rancidity and oxidant toxins. Freezing at appropriately low temperatures slows this process but does not stop it. The temperature in conventional freezers used for RF foods is not insurance against such oxidation. Because the frozen state masks olfactory detection of rancidity, foods that would be otherwise rejected end up being consumed. The free-radical pathology potential can then work its chronic degenerative disease and immune weakening effects.
- 7. Freezer Burn Indicates A More Serious Problem** – Air reaching the meat surface is the cause for the freezer burns that result in the typical grayish-brown leathery spots. Frozen water on the surface or just beneath it sublimates (from solid state directly to vapor) into the air, causing moisture to be lost from the meat over time resulting in discoloration and a dry, leathery texture. Proper packaging helps maintain quality and prevent freezer burn, however most packaging is permeable to air. The prevalence of freezer burn in RF products speaks to the fact that the product is being oxidized and with that creating free radical toxins to lay the seeds for various degenerative diseases.
- 8. Display Packaging Causes Free Radicals** – Light, as well as air, can promote free radical production. Retail display packaging that is clear or light permeable permits light to catalyze the free radical (disease promoting) process.
- 9. Frozen Products Are Not Inert To Degradation** – In frozen storage there is deterioration in organoleptic quality – meat texture, fat turning granular and crumbly, and discoloration. Microbial enzymes also remain active, especially lipases that break down fats increasing their susceptibility to oxidation.
- 10. Frozen Foods Can Lead To Acidemia** – Tissue degradation and oxidation under high heat freezing (above 29° F), which occurs along the supply chain with most RF products, also leads to acidification. Increasing acid consumption can contribute to acidemia that lies at the base of virtually every chronic degenerative disease plaguing modern pets. (See reference below.)
- 11. Temperature And Time Are Critical** – Ice nucleation, as opposed to ice crystallization, is the primary vector in producing a stable, tasty, frozen product. Freezing is a technically complex process based on the optimum combination of temperature and time, amongst other factors. In the wrong processor's hands, slips in proper freezing care can lead to a microbiologically unstable product and/or a sensory inferior one. Rapid freezing leads to nucleation, thereby preventing undesirable large ice crystals from forming throughout the product. With rapid freezing the molecules don't have time to form positions in the characteristic six-sided snowflake, so nucleation overrides crystallization. On the other hand, slow freezing (the usual RF situation) creates large ice crystals, which on thawing causes cellular damage to the meat. This in turn causes meat to "drip" – lose juiciness – and form a perfect liquid medium for bacterial growth.
- 12. The High Risk In Thawing** – Thawing is another critical phase in the freezing process as it involves a change from crystal ice to melted water, which upon reabsorption results in microbial reactivation. Pathogenic bacteria inherently contaminate raw meat, fish, and poultry and will begin to multiply again when the temperature reaches just 29.3° F – which is below freezing! Thus a product that may appear subjectively frozen could be a veritable incubator of pathogens. When consumers attempt to thaw RF foods, dangers dramatically increase. The surface temperature rises long before the interior is sufficiently thawed to serve. For example, it takes about 15 hours for the middle of a 22-pound turkey to get to 32° F. In the interim the surface temperature rises to 53° F. In this amount of time there would be about 4 multiplications of spoilage bacteria as well as non-detectable multiplications of pathogens.

The FDA Model Food Code (1999) recommends that food be thawed in the refrigerator or in flowing water. Thawing RF food in the refrigerator can be inefficient and time consuming, in addition to occupying refrigeration space required for other food items. Most of all, this lengthy procedure can lead to the risk of cross-contamination when the drip from the raw meat comes in contact with ready-to-eat food stored in the refrigerator. In the alternative, consumers usually put the RF food out at room temperature, creating the perfect circumstance for pathogen proliferation.
- 13. Undetected Freeze-Thaw Cycles** – The transit time of RF food from the processor (or John Doe's kitchen) to the distributor, to the stores and eventually to the consumer is very critical. Although freezer delivery trucks might putatively maintain stable product temperatures, lack of thermocouples fitted in the truck to show temperature readings, and/or inadequate TTIs (time-temperature indicators) can lead to micro-biologically infested products without any visible spoilage signs. If the refrigeration in any part of the

supply chain fails temporarily and then goes back to frozen (freeze-thaw-freeze), the consumer would never know of this abuse and danger.

- 14. Supply Chain Time Dangers** – Time is the enemy of nutrition and safety. The longer the time between the farmer’s field and the belly, the greater the potential problems. RF foods create the illusion that time is not a factor. Because the frozen state masks toxins and odors, the consumer can be given the impression of value and freshness when, in fact, they may be getting age and toxicity.
- 15. Microwave Thawing Dangers** – If RF foods are thawed in the microwave as a matter of convenience, the value of the food is greatly compromised. Microwaves can virtually boil the liquid phase within cells and electromagnetically alter important food components rendering them not only useless nutritionally, but toxic as well.
- 16. Mycotoxins Go Undetected** – RF foods, particularly those that are a mix of cooked grains (which of course negates the claim for “rawness”) and vegetables, can contain mycotoxins. None of the producers surveyed addressed this problem.
- 17. Frozen Product Mixtures Make No Health Sense** – In an attempt to cover every conceivable base and not miss any opportunity for profit, many RF producers mix every manner of ingredient. For example, watermelon, grains, persimmons, liver, lamb, etc. Not only would creatures in the wild never eat such a smorgasbord gruel at one sitting, such combinations in the fresh state can cause serious digestive stress. Many of the exotic RF ingredients do not keep well in the fresh frozen state (for example, freeze watermelon alone and see what happens, let alone combining it with meat). Also, the combination of fruit sugars with proteins can potentially create toxins such as glycation end products, acrylamides (particularly in those “RF” foods containing cooked carbohydrates) and reaction products of proteins with plant tannins, phenols and flavonoids. Producers “throwing the book” at RF formulations in desperate attempts to capture market share make evident their motives and their scientific, health and technical naiveté.
- 18. Parasites Are Ignored** – A wide range of parasites can be found within RF foods. Although there is technology in terms of freezing and natural ingredients that can be used to thwart this problem, none of the producers examined employed any of it that we could detect.

Packaging

The best packaging for any food, particularly RF foods, is light- and oxygen-barrier and modified atmosphere flushed. In the absence of this, oxidation proceeds rendering the lipids toxic. None of the producers surveyed employed these technologies that we could detect. Even if they did, the other problems and dangers listed above would remain.

Environmental

We live in an age of pollution and energy diminishment. RF foods require a tremendous amount of refrigeration and equipment all along the supply path. Freezing is energy inefficient and consumes valuable energy resources. Since RF foods are 70% water (at least) there are huge resources wasted in freezing and transporting the tons of this food-contained water through the supply chain. Along with all the equipment, trucking, freezing and frozen water handling inefficiency comes the pollution that parallels such industry.

Quality

In order to make their foods anywhere near affordable, RF producers must search the ingredient market for items that can carry the name of real food but may in fact be only a hollow shell of the real thing. Inferior meat and organ ingredients, heat processed grains and vegetable ruffraff (for example “broccoli” on a label may really be broccoli stems – like eating a branch from an apple tree rather than the apple) are used because they are of low cost. That is not to say the marketing brochures and labels do not make it appear as though the brand is not a true gourmet meal. If one reviews the various labels it becomes clear that the race is on to see who can put the fanciest and most exotic ingredients on labels ... as if that is the road to pet health. (It is not.) In a brief ingredient survey this is what we found:

Every manner of “pureed” vegetable
Organic beef, rabbit, chicken, turkey, goat, lamb, duck, pork
Organic honey
Organic papaya, persimmons, blueberries, oranges, apples, pears
Organic yogurt
Organic alfalfa, millet, quinoa and barley sprouts
Wheat grass
Nettles

Bok choy
Cultured kefir
Cod liver oil
Capsicum
Watermelon

The reader is challenged to go to the store and total up the cost of such ingredients. Some of the organic ingredients can cost over \$15 per pound. But the RF diets containing them can retail for as little as \$2-4 per pound. Take away margins for distributors and retail stores and the producer is selling them wholesale for close to a dollar per pound. Now on top of the cost of ingredients is the production, advertising, packaging, freezing and in some cases a sales force making six figures. Something most certainly does not add up. The only thing that can be missing is true ingredient quality. But how can the label say these expensive ingredients are in the food? All the producer needs to do is put in pinches of the expensive ingredients just to say they are there.

The only economic hope for a RF producer is to create the perception of “value added.” They simply could not put the costly ingredients in the food to any degree and make a profit for themselves and all the middlemen up and down the chain. The price they would have to charge would be ridiculous. In effect, in order to be successful, producers must become accomplished at propaganda, not health and nutrition.

Consumers interested in cutting through to the truth do themselves and their pets a service by going to the grocery store with a list of the ingredients ostensibly in a RF diet. Although some RF diets in the lower price range appear to not be attempting to mislead, consumers should do the math comparing the exotic ingredients in RF pet foods to the prices for the real thing in the store and decide for themselves whether either value or honesty resides in RF products.

Economics

Consumers are under the mistaken assumption that a nondescript package mix of ingredients with an officious label and from a producer posing as a nutritional authority (none of the producers we examined had people at the helm with expertise or credentials) would be the best choice. Little do they realize that they could avoid essentially all of the caveats listed above by simply going to the grocer and buying fresh meats and produce. Pets do not require every nutrient in existence at every meal, as is the impression given by the 100% complete RF producers, and for that matter the rest of the pet food industry. Why would people choose to pay a producer to mix inferior ingredients, package them, label them, freeze them, transport them, advertise them and pay the margin for the producer, the distributor, sales force and the retailer when they can avoid all that cost and put their money into real quality fresh foods? Some people are so convinced that RF manufacturers perform some sort of magic that they will pay to have such foods put in special insulated containers packed with dry ice and overnight delivered! This is particularly ridiculous when one considers that no real convenience – and certainly no health or nutritional value – is added in the process. The consumer still has to go to the store and buy something.

At the grocer a person can buy fresh, raw, untainted meats and produce appropriate for pet carnivores at less than \$1 per pound. Slightly out-of-date meats, sale items, trimmings or other still excellent products that cannot be put in the meat case can be even less. True, if you are to purchase the ingredients listed above in perfect human grade organic form (as many RF producers boast) the cost could be far greater. But at least you would know what you are getting. RF foods can cost as much as \$7 per pound with an average of about \$3-4 per pound (not including shipping to the customer’s door) and most of that cost is going into freezing, transportation and profits through a whole chain of participants. Here is a case where a consumer gets to pay more (a whole lot more) and get less (a whole lot less). Isn’t marketing a wonderful thing?

A Better Alternative

Fresh foods fed in variety are without question the perfect form of nutrition. Appropriately designed supplements to help reduce the risk of food-borne pathogens and oxidation, and to help balance high meat meals and provide a spectrum of vegetable-based nutrients and nutraceuticals such as Wysong has developed can also be of great benefit. Anything less than this is a compromise. The next best alternative is packaged dried raw foods that have incorporated in them food technology to impede pathogens, parasites and oxidation. The low water activity of these products is a great inhibitor of pathogens and the low level of moisture make storage and shipping efficient and environmentally friendly. (Wysong Archetype™ is the only such technology presently on the market.) Good quality table scraps and properly designed dried extruded and canned foods (see the Wysong line incorporating health-first nutritional technology) can be mixed into the diet rotation with benefit as well.

Consumers must learn the principles of fresh foods fed in variety and to trust in nature. Every pet owner desires the best for their pet and they are correct in thinking food is an essential element in achieving that goal. But it is incorrect to believe that another person can do more for their pet's health than they can do themselves. All that is required is a little understanding and use of common sense. To that end we provide a free e-Health Letter, a free one-hour CD by Dr. Wysong entitled, "The Thinking Person's Master Key To Health," healthy product alternatives designed intelligently with health as the number one objective, and books and recipes for anyone wanting to take control of their own and their family's and pet's health destiny so as not be led down health destructive primrose marketing paths.

(Note: Although the authors are associated with the technical development of the Wysong products mentioned above, the reader should not misconstrue the information as a commercial inducement. Wysong will teach people for free how to fresh-food-feed using only products purchased in the meat and vegetable aisles in the grocery. Although Wysong products provide convenient and supplemental alternatives and variety, no Wysong product is required to be purchased in order to achieve this superior method of feeding. The position is taken at Wysong that health professionals [which we are] have an ethical responsibility to help people prevent disease and thus are duty bound to teach people how to not need their services. So that is exactly what we do. Wysong products are a mere tool to help people along that path to the ideal goal of health self-sufficiency.)

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