



Communicating Proper Nutrition to Pet Parents of Cancer Patients

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Nutritional Support

Thank you

Hill's Pet Nutrition



Transforming Lives



Nutritional Support



**For pets
with cancer,
nutrition
matters**

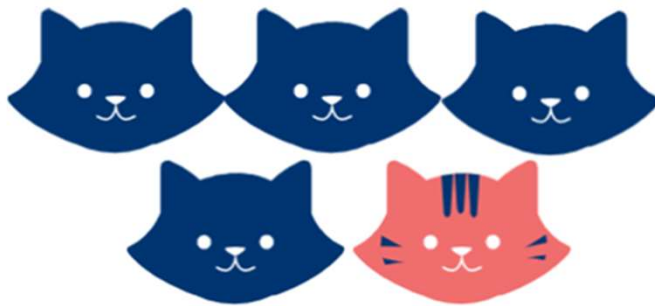


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Cancer affects many pets during their lifetime



**1 of 4
dogs**



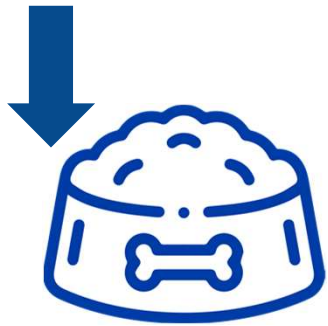
**1 of 5
cats**

www.csuanimalcancercenter.org

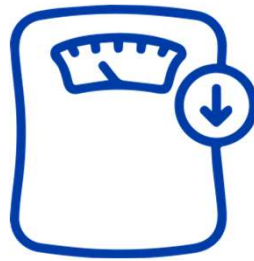


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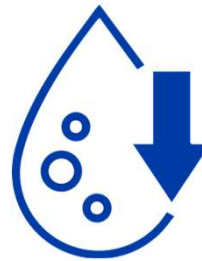
Cancer and its treatment increases the risk for malnutrition



Decreased
Appetite



Weight
Loss



Decreased
Nutrient
Absorption



Diarrhea



Malnutrition has a negative impact in pets with cancer



Response to
treatment



Remission
duration



Quality
of life



**Being proactive about nutrition
can improve
outcomes
& quality
of life**



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**For pets with
cancer, eating
is “life or
death”**



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**Initiate a proactive
nutrition discussion
with pet owners at
cancer diagnosis**



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Owners of pets with cancer want your nutritional advice

100% Believe in importance of nutrition

93% Open to trying a new food

85% Aware of importance to keep eating

79% Anticipate need to change food

79% Trust their veterinary team

Rajagopaul S, et al. *J Sm Anim Pract* 2016;57:484-90.



More than 90% of pet owners are open to considering a change in their pet's diet...

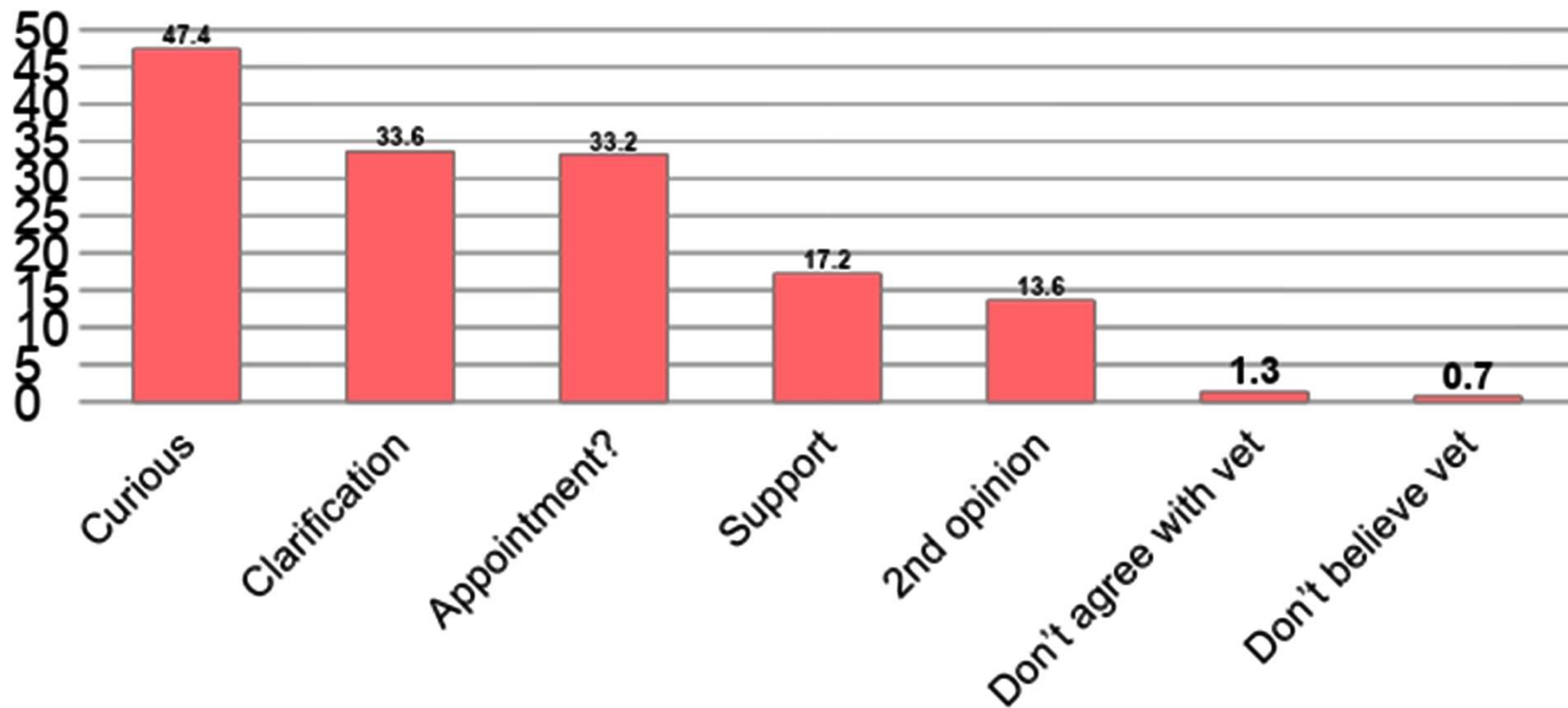
... if they understand how it will benefit their pet.

Alvarez & Schultz *JAVMA* 2021;259:644-50.

Rajagopaul S, et al *JSAP* 2016;57:484-90.



Pet owners don't look online because they disagree with their vet



Kogan LR et al. *Internet J Vet Med* 2009;8(1).



An accurate diet history is a key part of the nutritional assessment



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Start by asking what the pet owner is currently feeding

ask **why?**



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WSAVA
Global Veterinary Community

www.wsava.org

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Nutritional Support

In this section:

- Animal Welfare Guidelines
- Gastrointestinal Guidelines
- Global Dental Guidelines
- **Global Nutrition Guidelines**
- Global Pain Council Guidelines
- Hereditary Disease Guidelines

Short Diet History Form
Please answer the following questions about your pet

Pet's name _____ Species/breed _____ Age _____
 Owner's name _____
 Date form completed _____

Gender: male female Neutered/spayed No Yes

1 How active is your pet? Very active Moderately active Not very active

2 How would you describe your pet's weight? Overweight Ideal weight Underweight

3 Where does your pet spend most of the time? Indoors Outdoors Indoors and outdoors

Please list below the brands and product names (if applicable) and the amount of ALL foods, treats, snacks, dental hygiene product, rawhides and any other foods that your pet currently eats, including foods used to administer medications.

Food	Form	Amount	Number	Fed since
Examples:				
• Purina Dog Chow	dry	1 1/2 cups	2x/day	Jan 2010
• Science Diet Adult	dry	1/2 cup	2x/day	Jan 2010
• Gourmet Beef Entree	moist	1/2 can	2x/week	May 2011
• 80% lean hamburger	pan-fried	2 oz (85 grams)	2x/day	Aug 2012
• Milk Bone medium	dry	2		

*If you feed by volume, what size measuring device do you use? _____
 *If you feed tinned/canned food, what size tins/cans? _____

4 Do you give any dietary supplements to your pet (for example: vitamins, glucosamins, fatty acids, or any other supplements)? No Yes

If yes, please list brands and amounts: _____

Information below to be completed by the veterinarian:
 Current body weight: _____ Ideal body weight: _____
 Current body condition score* _____/9 or _____/5 *Refer to the body condition scoring chart
 Muscle Condition Score: normal mild wasting moderate wasting severe wasting

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**Explain how
the food helps
pet owners
achieve
their goals**



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Reinforce and explain the benefit of the new food

Instructions

Feeding instructions
New food information

Brochure

Text

E-mail



Nutritional Support

What percentage should be treats?



Eating enthusiasm is important

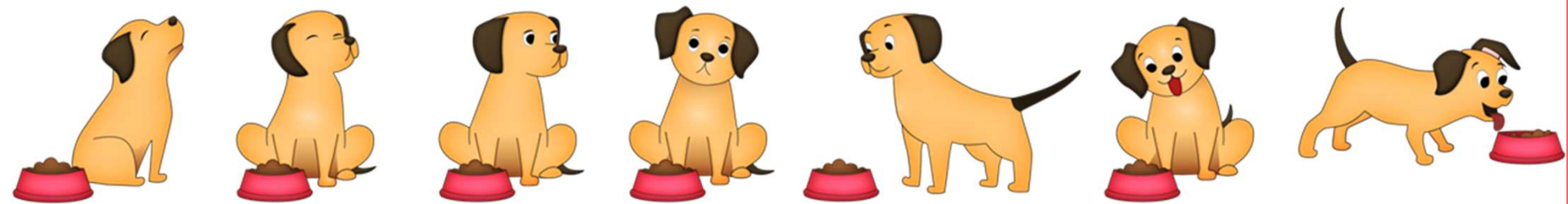


We partnered with **Kansas State University Sensory and Consumer Research Center** to develop an **Eating Enthusiasm Scale**



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Eating Enthusiasm Emoji Scales



Least



Most



What if the pet will not eat the new food?



Try feeding the new and old foods in separate bowls side-by-side

Warm up
the food to
102° F
(38.9° C)

Oregano*

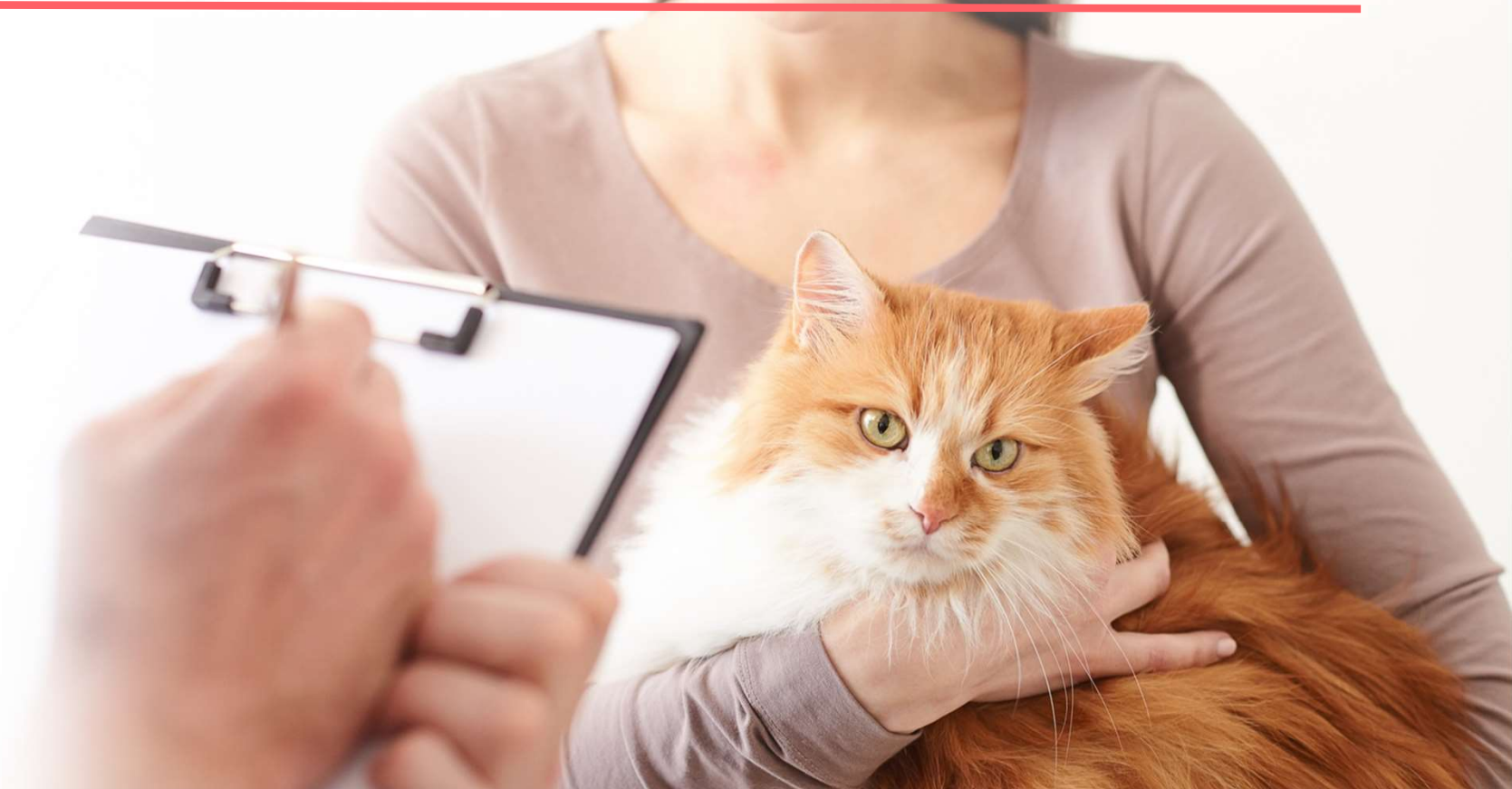
Broth

Small amount
Honey or corn
syrup- dogs only if
not a diabetic


*Do not use when transitioning to or feeding a hyperthyroid food



A nutrition plan helps pet owners follow your recommendation



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**Following up
with clients
will help with
compliance**



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KING



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Meet King

King is at the hospital today for an appointment
King has been limping lately



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King

Yellow lab,
male (neutered)

8 years, 60 lbs
3/5 or 5/9 BCS

Signs:
Limping left rear leg



King

Diagnosis:

Osteosarcoma, left rear leg

Treatment plan:

Recommendation to amputate

Owner cannot do surgery right now due to financial constraints

Will support until can do surgery in about a month



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Daily Energy Requirements

$27.2 \times 27.2 \times 27.2 = 20,123.648$
 $\sqrt{\sqrt{}} = 11.91 \times 70 = 834 \text{ RER}$

RER X 1.6 (adult) = 1334
kcal

1334 - 10% = 134 kcal
treats



Complete and
balanced = 1200 kcal

Treats = 134 kcal

Total = 1334 kcal



King Diet History- pre diagnoses



Hill's Science Diet Adult Healthy Mobility Large Breed Chicken Meal, Brown Rice & Barley Recipe dog food- 3 1/3 cups a day 359 cup = 1200

Hill's Natural Flexi-Stix Turkey Jerky Treats Dog Treats- 3 treats a day 30 kcals pet treat= 90 kcals

Hotdog 1/3 for glucosamine = 44

Total Kcals per day= 1334

Why?





King's Diet Recommendation: Stay on current diet



Follow Up
1 month



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King

Diagnosis:

Osteosarcoma, left rear leg month ago

Will be doing the amputation soon

Kind is doing great and has even put on some weight, now 63 lbs.



Follow up- Take Diet History

Hill's Science Diet Adult Healthy Mobility Large Breed Chicken Meal, Brown Rice & Barley Recipe dog food- 2 cups a day 359 cup = 718

Hill's Natural Flexi-Stix Turkey Jerky Treats Dog Treats- 3 treats a day 30 kcals per treat = 90 kcals

Hotdog 3 for glucosamine = 444

Total Kcals per day = 1252
Goal DER = 1334



What else?

Am – 1 cup Science Diet
Healthy Mobility
1 slice of wheat bread
1 pat butter
1 slice bacon
1 egg



Am – 1 Hotdog
1 Hill's Flexi-stix treat

Midday – 1 Hotdog
1 treat- Hill's Flexi-stix
treat



PM – 1 cup Science Diet
Healthy Mobility
1 Hamburger

PM– 1 Hotdog
1 Hill's Flexi- Stix treat
½ cup low fat ice cream



What else?

Am – 1 cup Science Diet Healthy Mobility= 359 kcals
1 slice of wheat bread- 79.5 kcals
1 pat butter – 35.8 kcals
1 slice bacon- 110 kcals
1 large egg- 71.5 kcals

Am – 1 Hotdog- 148 kcals
1 Hill's Flexi-stix treat- 30 kcals

Midday – 1 Hotdog- 148 kcals
1 treat- Hill's Flexi-stix treat- 30 kcals

PM – 1 cup Science Diet Healthy Mobility – 359 kcals
1 Hamburger- 251 kcals

PM– 1 Hotdog- 148 kcals
1 Hill's Flexi- Stix treat- 30 kcals
½ cup low fat ice cream 146 kcals

Total?

1946 kcals



Calories before and after diagnosis

Complete and balanced = 1200 kcals

Treats = 134 kcals

Total = 1334 kcals



Complete and balanced = 781 kcals

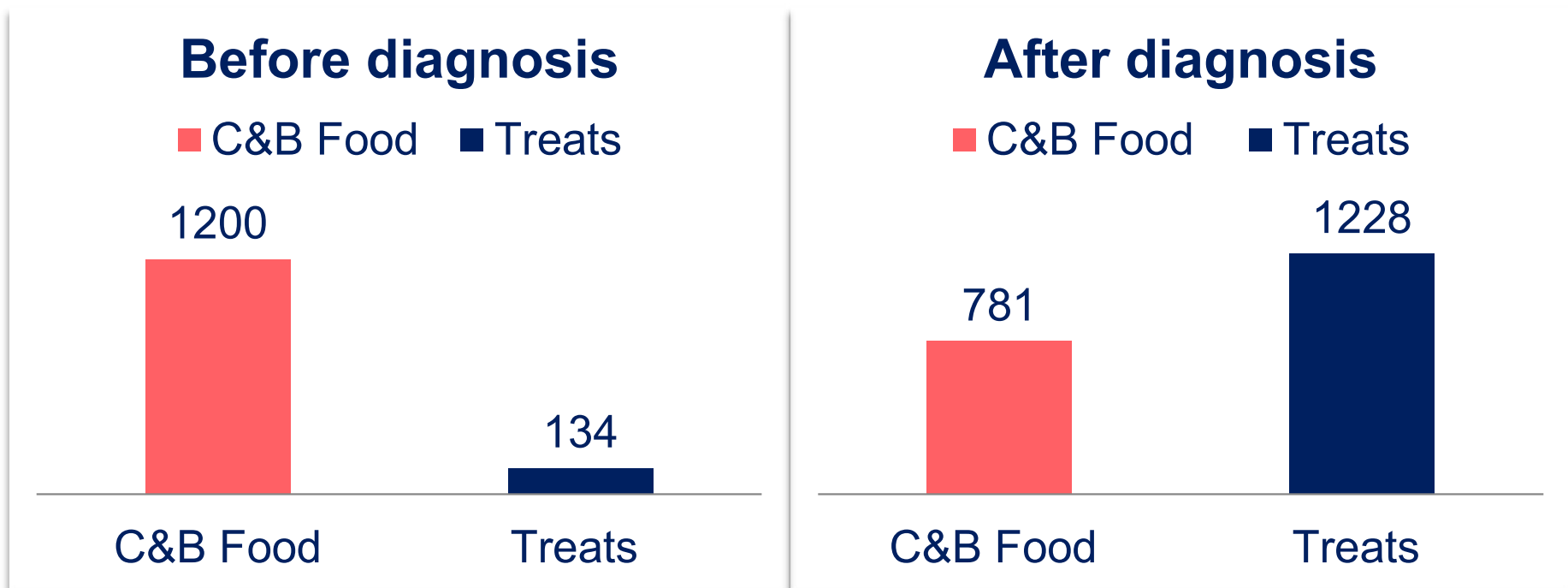
Treats = 1228

Total = 1946

46% more calories



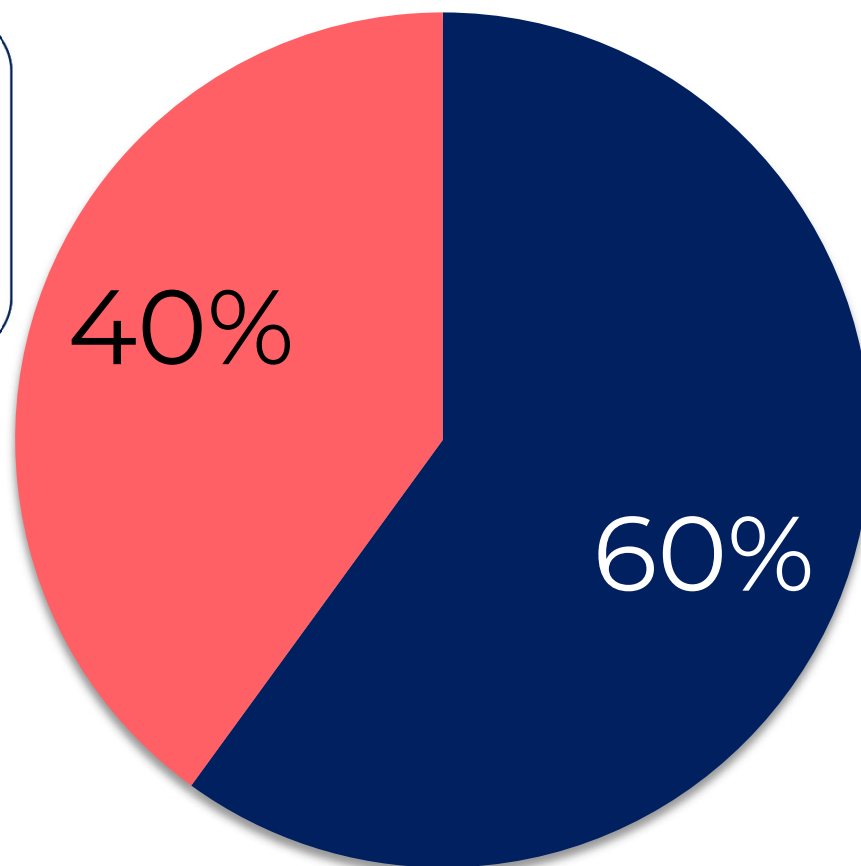
Calories before and after diagnosis



Complete & balanced vs. Treat calories



Daily Energy Requirements should not be below 90%



- Treats
- Complete & Balanced



New food recommendation



Hill's Prescription Diet
ONC Care with Chicken Dry Dog
Food- 483 kcals per cup

Hill's Prescription Diet
ONC Care Chicken & Vegetable
Stew Dog Food – 322 kcals per can

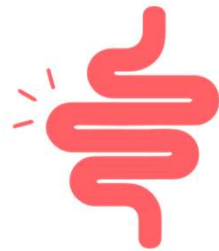


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NEW Hill's Prescription Diet **ONC Care**



**Exceptional
taste**



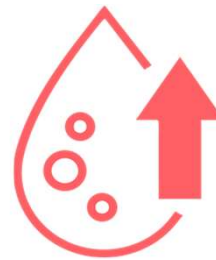
**Easy to
digest**



**Essential amino
acids & L-carnitine**



**Complete &
balanced**



**Omega-3 fatty
acids (EPA/DHA)**



**Consistent
stool quality**

ONC CARE



New food recommendation

Prescription Diet Onc Care
Dry – 2 cups - 1039 kcals

Prescription Diet Onc Care
Stew - ½ can- 161

Total **1200 calories** from
complete & balanced
food



Feeding
amounts

1200 complete &
balanced food
134 kcals treats

Total – 1334
kcals



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Treats

10% of total calories

10 miniature marshmallows= 22 kcals

1/3 piece of wheat Bread =26.5 kcals

1/2 tbsp.- Whipped Cream cheese-12.5 kcals

1/4 Hotdog = 44 kcals

1- Flexi-stix treats – 30 kcals

Total 135- kcals

Canned food- zero kcals in treat calories



If a feeding tube is needed Onc Care Stews blend homogeneously for syringeability



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Onc Care Stews blend homogeneously for syringeability

**If you have a patient
that needs specific
nutrition for tube
feeding,
what to do???**





King will need to be on the complete and balanced diet for two weeks before surgery



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Follow Up
6 weeks



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King- Follow up

2 weeks later

King is doing great on Prescription Diet Onc Care and is scheduled for his amputation

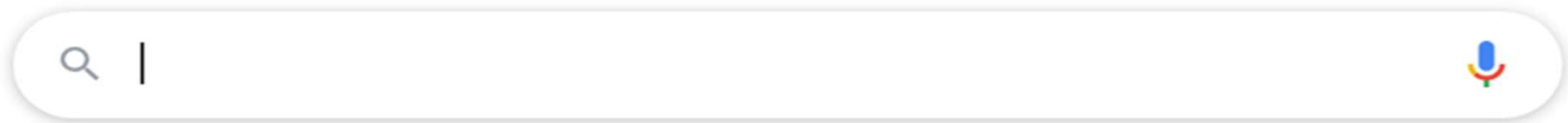


I just want to make
sure I'm doing
everything possible
to help my dog



Nutritional Support

Recommend credible online resources for pet owners

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Give an “online prescription” for credible nutrition information



The Savvy Cat Owner's Guide:
Nutrition on the Internet



The Pet Oncologist
Dr. Catherine Chan

WEETHNUTRITION

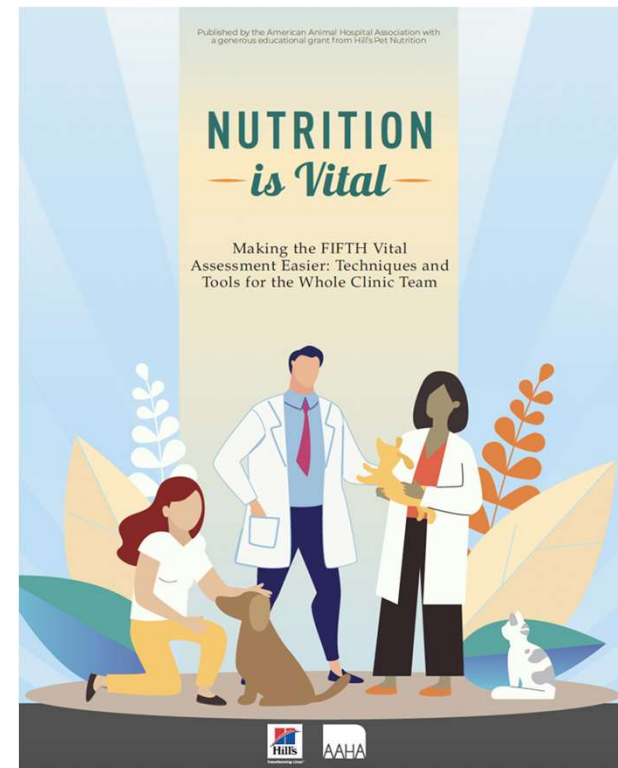
Common Sense Veterinary Nutrition



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Nutritional assessment is indicated for every pet, at every visit

AAHA → Resources → Pet Health Resources → Nutritional Resources





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Questions?

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