OPOSSUM DIET - Sample Make-in-Advance Recipes

Infant/Juvenile Diet StagesBlend Well and Freeze in Ice Cube Trays, Paper Cups, Zip Lock Baggies, or Larger Containers

Although, daily preparation of diets may work best with most caregivers, with variety suggested on the Weaning Schedule, the following formulations are offered for the benefit of those large busy wildlife centers who may be fortunate enough to have volunteers who prepare diets in large batches at home and deliver weekly. The blended nature of these formulations increases the probability that every mouthful will contain a balanced blend, and will prevent any one animal from gulping his favorite food item before the others get to the bowl.

Infant Formula *MultiMilk®, Milk Matrix 33/40®, and Milk Matrix 30/55® may be used in place of Esbilac®

Esbilac® *See Note Above	Distilled Water	Egg Yolk Cooked	Calcium Liquid or Tablet	Brewer's Yeast	Apple Juice	Nutri-Cal
1/3 C	1 C	1/2 lg. (8ml)	2 tsp. Calciquid (or 200 mg)	1/2 7.5 gr tab (250 mg)	2 tsp (10 ml)	1 tsp. (6 gm)
1 C	3 C	1-1/2 lg (24 ml)	2 Tbsp. Calciquid (or 600 mg)	1-1/2 7.5 gr tab (750 mg)	2 Tbsp (30 ml)	1 Tbsp (18 gm)

Post-Weaning Diet (For orphans weighing up to 100 Grams)

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Infant Formula – 9 parts	Peter's Food – 1 part	Fruit – 1 part	Protein – None
* (See above for recipe)	*(See below for recipe)	(Variety)	
9 Ice Cubes of frozen formula	1 Ice Cube of Peters Food	2 Tbsp	None!
1 C plus 2 Tbsp	2 Tbsp	2 Tbsp	None!

Post-Weaning Diet (For orphans weighing 100 to 200 Grams)

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Infant Formula – 50%	Peter's Food – 35%	Fruit – 15%	Protein – <1%
* (See above for recipe)	*(See below for recipe)	(Variety)	Pre-stirred Fruit Yogurt (*See note)
1 C	3/4 C	1/3 C	1 tsp
2 C	1-1/2 C	2/3 C	2 tsp
3 C	2-1/4 C	1 C	1 Tbsp
5 C	3-1/2 C	1-1/2 C	5 tsp

NOTE: Plus - Introduce scrambled egg to each animal - up to 10 grams per 200-gram animal (1 egg approx. 50 grams) once or twice a week.

Post-Weaning Diet (For Orphans 200 Grams to 1 lb.)

Infant Formula – 10%	Peter's Food – 78%	Fruit – 20%	Mixed Protein – 2%
* (See above for recipe)	*(See below for recipe)	(Variety)	(See Recipe Below)
1/4 C	1-3/4 C	1/2 C	2-1/2 tsp
1 C	7 C	2 C	3 Tbsp
3 C	21 C	6 C	10 Tbsp (or 1/2 C plus 2 Tbsp)

Juvenile Diet (Opossums weighing 1 lb. to Release) (Gradually convert to Adult Diet - See Tab 3)

Infant Formula – Discontinue 0%	Peter's Food – 70% *(See below for recipe)	Fruit – 20% (Variety)	Mixed Protein - 10% (See Recipe Below)
None	2-1/3 C	2/3 C	1/3 C
None	7 C	2 C	1 C

Mixed Protein Recipe (To be used as protein choice in animals over 200 grams only). Include cooked chicken bones 3 times a week. For opossums 400 grams and over, use the smallest 2-bone section of a chicken wing (excluding tip). For smaller opossums, they may be crushed.

Canned Salmon	Hard Boiled Eggs	Chicken Livers	Yogurt
		Cooked	Pre-stirred Fruit or Plain
1/4 C	2 Large	1/4 C	1 C
1/2 C	4 Large	1/2 C	2 C
1 Can	8 Large	1 C	2 lbs. (4 C)

Peter's Food (1 Part Cat Chow: 1 Part Vegetables: 1/4 Part Yogurt)

Adult Cat Chow - see NOTE below	Blended Vegetables	Yogurt
1/2 C	1/2 C	2 Tbsps.
1 Baby Food Jar	1 Baby Food Jar	1/4 Baby Food Jar
1 C	1 C	1/4 C
2 C	2 C	1/2 C
4 C	4 C	1 C

NOTE: Choose quality cat chow with approximately Protein 31.5%, Fat 11%, Calcium 1.1%, Phos 0.9%, Vitamin A 10,000 IU/kg. Some nutritionists view soy as a harmful recent addition to chow products, and you may want to avoid it. Chows vary widely and change frequently without warning. Check your labels!

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Formula Notes

Below is the same recipe - just a slightly different format that you may find useful.

Reconstitute powdered Esbilac 1/3 cup to 1 cup distilled water

Dilution can be increased to 1 part to 5 (1/3 cup Esbilac to 1-2/3 cup distilled water) (very ill or small infants may need up to 1:10)

1 tsp. Nutrical (6 gm)

200 mg Calcium tablet, crushed

8 ml egg yolk, cooked (about ½ yolk of large egg)

½ 7.5 grain tablet Brewers yeast, crushed (250 mg)

2 tsps. apple juice

Optional- 10 ml lowfat fruit yogurt.

The extra ingredients are critical to the success of the formulas. Do not use *just* the formula base. You have to include ALL of the ingredients in the specified amounts.

Cook the egg yolk by adding it to the water to be used and microwave until steaming, or boil the eggs and discard the white.

When using Esbilac powder, I find it easiest to mix the yolk with the water, then microwave, let cool off a little, and then add everything else but the Esbilac powder, and mix well. Then gently stir in the powder.

Esbilac powder - is puppy milk replacer, available at pet stores, feed stores, vets, or online.

Nutrical is a vitamin-mineral paste, available at pet stores, feed stores, vets, or online.

Calcium should be calcium only, no Vit. D,
Magnesium, or any other active ingredient.
Widely available.

Egg yolk – 8 ml is approx. half of one large egg yolk, and supplies critical lipoproteins.

Brewer's Yeast (NOT baking yeast) supplies additional B Vitamins, and trace minerals and nutrients – (Available on Amazon, health food stores, commonly as 500 mg or 7.5 grain capsules or tablets.

Apple juice increases the carbohydrate content

Yogurt We always add the yogurt. They like it, and we think the beneficial bacteria improve the digestibility and help prevent yeast infections from the antibiotic.

Antibiotic Notes:

Septicemia is VERY common in infants, they are all traumatized in some manner, and the prophylactic amoxicillin is the best we can do to prevent septic deaths. Infection would not necessarily have to come from a sick or dead mother, but merely from being orphaned- (chilling, dehydration, bowel stasis, etc). Skin lesions and swellings are a classic sign, but other vague symptoms, such as appetite loss, stumbling, lethargy are common as well. Prevention is a much more effective way to treat these young ones than to wait until they show symptoms.

In POSSUM TALES Vol. 9, No 3-4, Dr. Anita M. Henness, DVM, states,"...there are hundreds of orphan care-givers nationwide who have had at least one experience with opossum infants which die 'for no apparent reason' or with prodomal 'cuts', petechia, or other cutaneous lesions. If these infants were routinely examined, post-mortem, the cause would be found to be SEPSIS. Unfortunately, as also is in the case of older individuals, most opossums DO NOT DEMONSTRATE ENOUGH CLINICAL EVIDENCE FOR SEPSIS...UNTIL IT IS TOO LATE! One must have a high index of suspicion...GIVE the prophylactic antibiotics!! Because none of us is good enough at guessing or 'knowing' which opossum is/is not really sick. Infants are immunologically immature. THEY ARE AT RISK ALL THE TIME...unless they are with their (healthy) mother."

Amoxicillin is most commonly used. The usual dose for infants is 7.5mg/lb., once/day- 7-14 days prophylactic, 2-4+ weeks with frank wounds or illness. For babies under 300 grams or so, you will need to dilute the stock Amoxi-Drops, to achieve more accurate dosing.

The usual strength of Amoxi-Drops is 50mg per ml. To dilute, mix 1 ml of Amoxi-Drops with 9 ml water, thus bringing the dilution down to 5 mgs per ml. At this dilution, the dose is 0.017 mgs per gram of body weight, or 0.0034 ml.

To calculate dosage of diluted Amoxi-Drops for any weight, multiply the baby's weight in grams times 0.0034.

Example Diluted:

37 gram baby times 0.0034 ml = 0.1258 ml of $\underline{\text{diluted}}$ Amoxi-Drops

To calculate dosage of <u>undiluted</u> Amoxi-Drops for any weight, multiply the baby's weight in grams times 0.00034. (adding a zero).

Example Undiluted:

300 gram baby times 0.00034 ml = 0.102 ml of <u>undiluted</u> Amoxi-Drops

Note: A 1-oz. infant is about 28 grams.

Sulfa/trimethoprim and occasionally other antibiotics may be needed instead of amoxicillin, or the dosage of amoximay need to be adjusted. If in doubt, consult with your veterinarian or orphan care counselor.

Nystatin suspension is useful as a yeast infection preventative, and is highly recommended. The dosage is 25,000 U/lb. Probiotics containing bowel bacteria such as L. acidophilus may also be helpful.

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