



# Milk for Echidna

Also used for Platypus.

 <p><b>WOMBAROO</b></p> <p>ECHIDNA MILK REPLACER EARLY LACTATION</p>	<b>Echidna Milk Replacer Early Lactation</b>	<b>Analysis</b>	
	<p>For young less than 30 days old.</p> <p>Furless. Pinkish-grey skin. Eyes closed. Pouch bound.</p> <p>Faeces: Custard to toothpaste consistency.</p> <p><b>Pack size: 210g.</b></p>	Solids	210g/litre
		Protein	34%
		Fat	38%
		Carbohydrate	16%
		Energy	4.9MJ/litre

 <p><b>WOMBAROO</b></p> <p>ECHIDNA MILK REPLACER LATE LACTATION</p>	<b>Echidna Milk Replacer Late Lactation</b>	<b>Analysis</b>	
	<p>For young greater than 50 days old.</p> <p>Fur: By 60 days finely furred with spines emerging.</p> <p>Faeces: Toothpaste to soft then firm pellets.</p> <p><b>Pack size: 250g, 1.25kg.</b></p>	Solids	360g/litre
		Protein	32%
		Fat	42%
		Carbohydrate	13%
		Energy	8.8MJ/litre

## Age Estimation

Individual echidnas show considerable variation in body weight and growth rate with age. Echidna young leave the pouch at similar ages (around 45-60 days) but at very different sizes. Offspring of larger females tend to have a faster growth rate and are heavier at than those of smaller females. The following growth chart therefore provides two columns of weight for age, one for smaller animals, the other for larger animals. If a particular animal does not fit one weight range then it may fall between the columns, or outside either weight range.

## Feeding Guidelines

Echidna can suckle vigorously and the high nutrient content of the milk means that young are fed infrequently. In the wild burrow young (>50 days) are only suckled by their mother approximately once every 5 days. (Rismiller PD and McKelvey MW, 2009. Activity and behaviour of lactating echidnas. *Aust J Zoology*.)

Digestion of milk is slow so the contents of the stomach need to be fully emptied before the next feed. For Early Lactation Echidnas we recommend to feed every 36 hours, and for Late Lactation Echidnas the feed intervals should be at least 2 days apart. This time frame may be further extended as the animal gets older.

## Short-Beaked Echidna (*Tachyglossus aculeatus*)

Milk	Age (days)	Body Length (mm)	Small Animals		Large Animals		Notes
			Weight (g)	Feed <sup>1</sup> (mL/day)	Weight (g)	Feed <sup>1</sup> (mL/day)	
Early	10	55	7	6	10	7	
	15	70	20	9	25	10	
	20	85	39	12	45	12	
	25	100	60	14	65	14	
	30	115	82	15	95	16	
Transition	35	129	104	20	130	20	15mL Early + 5mL Late
	40	143	126	20	168	20	10mL Early + 10mL Late
	45	157	148	20	208	20	5mL Early + 15mL Late
Late	50	170	170	20	250	23	Fine fur/spines may be present
	60	Not Valid	215	22	345	26	Emerged from pouch
	80		305	25	540	31	
	100		395	28	750	35	
	120		485	30	970	39	Introduce Solid Food
	150		620	32	1300	43	Start Weaning
	180		755	35	1670	48	Fully weaned (180-210 days) <sup>2</sup>


### Notes

1. Feed is given as average **daily** volume, so multiply this number by the number of days between each feed.
2. Tasmanian animals tend to have a faster growth rate and wean earlier (around 150 days).

## Weaning

Echidnas should be fully weaned at about 6 to 7 months of age and the body weight at this time may be anywhere from 700g to 2kg. Prior to weaning solid food may be introduced into the diet. Start by mixing small amounts of **Wombaroo Echidna Food** into the milk. Over the next month, slowly increase the amount of solids while decreasing the amount of milk. During this time the mix should change in consistency from a thin porridge to a thick paste. Gut health of young may benefit from the addition of about 10% crushed termite mound or similar soil material in to the mix.

## Echidna Food

	Echidna Food	Analysis	
	<p>A complete diet for echidna and other ant/termite specialists. Full range of vitamins, minerals and essential nutrients in line with composition of termites. High in fibre to improve gut health and faecal consistency.</p> <p><b>Pack size: 1kg, 5kg, 20kg.</b></p>	Protein	30%
		Fat	10%
		Crude Fibre	20%
		Energy	14MJ/kg

### Directions for Use

Mix 40g of powder (approx. 5 scoops) with 120mL warm water to form a liquid slurry.

For captive echidna on an existing diet, transition on to **Wombaroo Echidna Food** by gradually replacing the old diet by 10-20% per day. For weaning hand-reared puggles, start by mixing small amounts of Echidna Food in with milk replacer. Over the next month, slowly increase the amount of Echidna Food, while decreasing the proportion of milk replacer until fully weaned.

Gut health of echidnas may benefit from the regular addition of termites and crushed termite mound to the diet. Prepare Echidna Food as per directions and mix with about 10% crushed termite mound and some live termites.

### Maintenance Feed Guide

Weight (kg)	g/d (powder)	Weight (kg)	g/d (powder)	Weight (kg)	g/d (powder)
0.5	10	3.0	35	6.0	60
1.0	15	4.0	40	7.0	65
2.0	25	5.0	50	8.0	70

Feed rates are estimates only and may vary considerably between individuals. Weigh animals regularly and adjust feed amount to achieve a healthy body weight and condition. For breeding animals & growing juveniles requirements may be 2-4 times maintenance. For species other than echidna, adjust feed rates according to metabolic rate.