



Diet and Exercise

Treatment for orangutan obesity

By Rachel Alvarez

Obesity may have a negative effect on health leading to reduced life expectancy and/or increased health problems.

- Health
- Attitude
- Energy
- Learning
- Social interaction
- Reproduction
- o Diet
- Exercise

Health

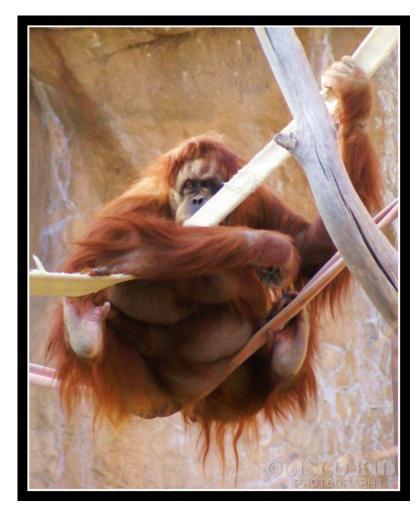
- Arthritis
- Heart disease
- High blood pressure
- Infertility
- Diabetes
- Shorter life span

Attitude

- No motivation
- Short attention span
- No cooperation
- Only motivation...food







Energy



• Due to excess weight Ibu's energy level on exhibit was extremely low.



Energy



• Less weight = More energy!



Learning

- Advantages
 - Alert
 - Cooperative
 - Focused
 - Interested in her training sessions
 - Self motivated



Social Interaction & Reproduction



- Obesity can affect social interaction between orangs and can minimize the interaction between keeper and animal.
- Obesity can also affect reproduction:
 - Infertility
 - Problems during pregnancy
 - Difficulties at time of delivery

Diet

• 1st step – Evaluated total calorie intake

- Worked with Zoo vet to determine correct calorie intake using husbandry guidelines
- Included enrichment (food)calories in Ibu's overall daily diet

Diet

o 2nd step – Diet reduction • Initially 1600-1700 kcal • Reduced to 1100 kcal

	Oran	g 0.1 "Ibu"		Orang 1.0 "Butch"		
		TUESDA				
AM	grams 85 100 80 150 300	Item Primate Maint Orange Pear Carrot Spinach	AM	grams 85 170 110 330 300 550	Item Primate Maint Orange Pear Carrot Spinach Romaine	AM
PM	85 100 150 150	Primate Browse Seasonal Fruit Squash Seasonal Veggie	PM	255 170 330 330	Primate Maint Seasonal Fruit Cucumber Seasonal Veggie	РМ
KEE	PER	Dairy Serving	KEE	PER	Dairy Serving	
		Up to 75 cal Treat WEDNESD	AV		Up to 100 cal Treat	KEE
The second			T			
AM	grams 85 100 80 150 550	Item Primate Maint Apple Seasonal Fruit Broccoli Romaine	AM	grams 85 170 170 330 300 550	Item Primate Maint Apple Seasonal Fruit Broccoli Other greens Romaine	AM
PM	85 100 100 150	Primate Browse Grapes Yam Seasonal Veggie	PM	255 150 200 330	Primate Maint Grapes Yam Seasonal Veggie	РМ
KEEPER		Nut Serving Up to 75 cal Treat	KEE	PER	Nut Serving Up to 100 cal Treat	
		MONDAY,				KEE
AM	85 100 150 150 550	Item Primate Maint Seasonal Fruit Bell Pepper Seasonal Veggie Leaf Lettuce	AM	85 150 330 330 550 550	Item Primate Maint Seasonal Fruit Bell Pepper Seasonal Veggie Leaf Lettuce Romaine	
PM	85 100 75 150	Primate Browse Melon Banana Corn	PM	255 150 110 330	Primate Maint Melon Banana Corn	
KEE	PER	Carb Serving Up to 75 cal Treat	KEE	PER	Carb Serving Up to 100 cal Treat	

SATURDAY 0.1 "lbu" grams Item 85 Primate Maint 150 **Bell Pepper** Seasonal Veggie 150 1 Cantaloupe or 1/2 Honeydew or 1/4 Watermelon 85 Primate Browse 150 Corn 550 Leaf Lettuce (1 head) PER Carb Serving Up to 75 cal Treat 1.0 "Butch" grams Item 85 Primate Maint 330 Bell Pepper 330 Seasonal Veggie

1 Cantaloupe or 1/2 Honeydew or 1/4 Watermelon 255 Primate Maint 330 Corn

550 550	Romaine
PER	Carb Serving Up to 100 cal Treat

5/1/2013

Diet

Orangutan Diet Prep

Ibu

- 85g of biscuits: 7 (21 small) biscuits in bucket for 8am feeding The rest in 12:00 feeding container
- 200g of greens in bucket for 8am feeding
- 10:00 feeding container: 50g of veggies
- 12:00 feeding container: 60g of veggies
- 2:00 feeding container 50g of veggies
- 1 small container of best fruit cut into small pieces for conditioning

*Put all of the containers in grey A.M. bucket

*The rest of her diet goes in her evening diet container (see schedule for evening prep)

Butch

- 85g of biscuits: 5 (15 small) in 8am container and 5 (15 small) in 12:00 container
- 8:00 feeding container: 40g of veggies + 5 (15 small) biscuits
- 10:00 feeding container: 50g of veggies
- 12:00 feeding container: 60g of veggies + 5 (15 small) biscuits
- 2:00 feeding container: 70g of veggies
- 1 small container of best fruit cut into small pieces for conditioning

*Put all of the containers in same grey A.M. bucket *Rest of his diet goes in evening diet container (see schedule for evening prep) • 3rd step – Complete diet broken down into several feedings throughout the day



• 4th step – Implement exercise program twice daily



Exercise

Exercise





Thank You!

