In Search of The Natural Weaning Age Of Humans
There are different weanings...

- Breaking exclusivity of breastmilk with formula or solids is the beginning of intestinal changes=intestinal weaning
- Night weaning/public weaning
- Weaning from breast
- Weaning from bottle
- Pacifier, thumb
WHEN SHOULD FINAL WEANING OCCUR?

- When are we “naturally” intended to wean? Begin weaning? Final weaning?
- How have humans weaned through the millennia?
- What do the “experts” say?
- What’s the research show?
Archeological Findings Suggest Weaning Ages Throughout The Millennia
2,000,000 to 10,000 years ago

Borresen, J Hu Lact 1995

- Commonly found patterns of wide birth spacing (3 years) among paleolithic hunter-gatherers indicate that our “ancestors must have given very little supplementary food in the first 2 years postpartum.”
Anthropologists can “read” certain defects found in children’s teeth from archeological digs, making inferences about when supplementary foods have begun and when weaning was well underway or nearing completion.

It is accepted theory among these scientists that the weaning process causes stresses on a child’s health and the effects of these stresses are exhibited in their developing teeth.

Weaning is also found to be associated with a greatly increased risk of death. Major signs of child stress indicate abrupt weanings.
Thought to be more accurate: Measuring various element isotope findings in bones

Better clues about the final end of breastfeeding.

Large numbers of children have been evaluated at sites from hundreds to many thousands of years old at digs from all around the world.

There are some questions about the accuracy of using dental signs so I bring mostly epitope studies, but none are available for the oldest populations.
12,000 and 1.8 million years ago: Spain


- **Low level of developmental stress**

- “The majority of linear enamel defects in the sample occurred during the third year of life and may be related to the metabolic stress associated with weaning.”

- (Doesn’t indicate an end-point, rather a significant portion of solids)
South Africa: 5,000 years ago


- “We deduce that children... were breastfed for at least the first 1.5 years after birth, and were weaned sometime between 2-4 years of age.”
- “...even when those foragers lived in an environment with abundant food resources.”
- “!Kung women (today) are said to believe that their children should have strong legs, and a diet of mother’s milk is the way to achieve this. They are also of the opinion that a child needs breastmilk until it is at least 3 or 4 years old.”
Among Californian Indian finds from 2500 BC to 1800AD, enamel hypoplasia (representing period of greatest physical vulnerability) “is most common during the 5th year, and none was detectable in the 1st year.”

“There is no significant change in the hypoplastic age profile (in Californian Indians) through archeological time.”
Egypt: 2300 to 4700 years ago

- Infants were breastfed for up to 3 years
- Supplementary foods were introduced into the diet starting at around 6 months
Guatemala: 500 to 2700 years ago

Wright, 1998

“Kaminaljuyu children had begun to eat solid maize foods before the age of 2 years but continued to drink breast milk until much later.”
Romano-Christian period 1550–1750 years ago

Tosha, 2001

“At the same time that they were being weaned, however, they display a distinctive increase in d13C, which we attribute to the consumption of diary milk from cows, or goats, part of whose diet included C4 millet.”

“These observations are consistent with traditional weaning practices of the Roman era. They advised that supplementary foods, specifically a mixture of honey and goat’s milk, should be introduced at approximately 6 months of age and that infants should be breastfed until approximately 3 years of age.”
Germany: 1300 to 1500 years ago

Dittmann, 2000

- "Onset of weaning was by 1 year of age, when solid vegetable food subsequently replaced breast milk."

- "In total, the change from mother's milk to solid adult food took about 3 years, the infants being fully weaned at this age."
Mississippi 800 years ago and Illinois 1000 years ago

Goodman, 1984

- "... a common peak frequency of hypoplasias between 2.0 and 4.0 years"
England: 650 to 450 years ago

Fuller, 2006

- “After the average age of 2 years... introduction into the diet of weaning foods”
- “The cessation of breastfeeding... was highly variable and probably gradual.”
- “Some infants seem to have been fully weaned by 1.5–2 years, whereas others apparently had some breast milk in their diet as late as 3–4 years and possibly even 5.5 years”
“Age at peak stress between 2.5 and 4 years”

“... transects the ranges reported for prehistoric populations (2-6 years) and for modern groups (0-3 years).”
“These results indicate that the stress associated with weaning probably occurred earlier in [beginning] industrial societies than in prehistoric hunter/gatherers and agriculturalists, yet not as early as in modern industrial groups.”

“The high level of childhood stress in this skeletal sample compared with that of other samples may indicate a change in health, at least among the lowest class, associated with the cultural transition from an agricultural to an industrial society.”
Weaning Yesterday and Today

Isis breastfeeding Horus
Infant mortality for “women who worked in emerging textile factories who could not breastfeed and used animal milk”: **682 deaths per 1000** in 1903” ... 

Compare this to overall infant mortality at that time: 
100/1000 in 1900 
and 75/1000 in 1910 

It’s evident that the infant death rate for those being fed animal milks was around 7 times the overall infant death rate.
Weaning Yesterday & Today

- Still risky today, early supplementing with animal milks or solids were even riskier prior antibiotics and advanced sanitation, meaning life-threatening respiratory and diarrheal diseases.

- Early animal milk or solids means malnutrition as well as blocking breastmilk’s immune protections.

- Today’s formulas lead to less nutritional challenge but still block the immune protective bubble that only exclusive breastmilk can provide.

- Based upon the clear risks of supplementing: **Early 1900’s pediatricians recommended no solids before 12 months**
In the 1960’s a grow-that-baby-up competition began... Potty training at 14 to 18 months...

Parents were taught to encourage baby to overcome the natural tongue thrust

Concept of a “GOOD parent/GOOD baby”

1970 AAP recommended anywhere from 4 days to 4 months for solids introduction

1995 WHO said between 4 & 6 months “and not later than six months”
Today’s recommendations

- Today, AAP recommends “somewhere during the second half of the first year.” Most pediatricians interpret that as beginning solids at 6 months.

- And baby food companies perpetuate this inaccurate interpretation.
Typically we see mother mammals taking some initiative in the weaning process.

**Lactose** is nature’s final assurance... Only found in milks, lactose naturally causes gas and pain in older child mammals (and adults) as lactase enzyme (for lactose digestion) is naturally lost in childhood, assuring that a child will stop nursing by the age of 6 or 8. Humans of Northern-European descent have developed lactase enzyme persistence over the last few millennia from their attempts to survive in further and further Northern regions by depending upon the milk of cows.
Starting Solids?

- Delaying Solids: Is Breastmilk Enough?
- What Does Breastmilk Become Deficient In?
- Cow's Milk Instead of Human Milk?
- What to Feed First
- What About Home Made Formulas?
- Goat's Milk? Raw Milks?

See my slide presentation:

BEYOND BREASTMILK

http://www.babyreference.com/BEYONDBREASTMILK.html
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LFPalmer@BabyReference.com

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