

# A Review on Pacifier, its Types and Complications

Vamshi Goura<sup>1\*</sup>, M. Sreekanth<sup>2</sup>, Sheetal Jadur<sup>3</sup>, Pravallika Muthyala<sup>4</sup>, G. Akhila<sup>5</sup>, J. V. C. Sharma<sup>6</sup>

<sup>1,2,3,4,5,6</sup>Joginapally B. R. Pharmacy College, Hyderabad, India

**Abstract:** Pacifiers are the devices which babies can suck on to help them clam down and sooth them when the babies cry, get restless, while they're struggling to sleep (or) thumb feeding pacifiers can satisfy the babies it's artificial activity of the artificial nipple activity. They are made up of a silicon (or) rubber nipple which is attached to a plastic shield. Which the shield (or) plastic helps in the handling (or) provides grip to the device. Generally, the pacifiers are used to replace the mother nipple. It is an artificial nipple which is used to get babies into sleep. It gives the break from the mother feeding. In some case children are sucking in the thumb finger which is become has a habit of the child. Feeding of pacifiers, toy's thumb doesn't lead to get any nutrition form them so it is known as non- nutritive sucking. mainly use of pacifiers are reduced the risk of the sudden infant death syndrome(SIDS). According to relevant use of pacifiers most countries are pacifiers united states (US). Which used to decrease in the SIDS. Different types of pacifiers are used according to their need to the babies, they are some are used to get sleep in babies, some are used as bottle feeding it's may be milk, liquids feeds. Due to increase death of SIDS pacifiers are used wildly.

**Keywords:** pacifiers, nutrition, sudden infant death syndrome (SIDS), non-nutritive sucking.

## 1. Introduction

Pacifier is an a (soother) to satisfy the baby's need to suck. Some babies are like to keep their thumb finger in the mouth and they continue the sucking. Which is become daily habit. However, pacifiers don't used as a feeding and it showed never used as an extra comfort of the babies need. While they are used in the form of baby satisfactory need. Pacifiers are used in the children at age above 12 months.

Types of pacifiers:

1. Latex pacifiers
2. Round tip baby pacifiers
3. Orthodontic pacifiers
4. Silicon baby pacifiers
5. Multiple baby pacifiers

### 1) Latex pacifiers

latex pacifiers are the pacifiers are softened flexible, but also soften of the materials which has the potential to wear & tear with the baby's teeth.

### 2) Round tip baby pacifiers

Round top Baby pacifier has the actual shape of the mother's nipple which often used as a breast feed to use of the nipple confusion.



Fig. 1. Latex pacifiers



Fig. 2. Round tip baby pacifiers

### 3) Orthodontic pacifiers

These nipple has the flattened and at the bottom and rounded at the top. Orthodontic pacifier which helps in the reduce pressure on the developing teeth.



Fig. 3. Orthodontic pacifiers

### 4) Silicon pacifiers

Silicon pacifiers are widely used in the market due to its life time & it is a semi- synthetic material with an atomic no. 14 and melting point is 1.414°C, hard crystalline solid.



Fig. 4. Silicon pacifiers

### 5) Multiple piece baby pacifiers

These are the most common pacifiers. These are usually consisting of nipple, and a ring is separately manufactured and combined with traditional manner.

\*Corresponding author: vamshigoural38@gmail.com

## A. Raw Materials

Pacifiers are made up of soft, pliable materials that which closely resembles as a mother's nipple. Increasingly doctors and safety experts are using to manufacture to produce pacifiers in a single unit. Product also is preferably molded from a single material. In 2001 pacifiers are primarily constricted from latex (or) silicon and also other soft plastics can be used their manufacture of pacifiers.

Plastics require the chemical additives which are harmful to the children and these pacifiers are recalled by federal government not for constriction of failure but for the additives use.

The chemical additives which are used in the plastic pacifiers are very harm full to the children which are used in the processing of the raw materials.

### Latex:

Latex are used for the preparation of the natural rubber latex which are obtained from the natural resources of tree like Heave beasiliasis. Chemical are added the raw latex to increase the elasticity and strength of the raw latex. Proteins are found in this natural materials that have caused severe allergic reactions in the consumers. Which vaccination of the hepatitis B.

### Silicon:

In recent days' silicon is used as a raw material for the pacifiers. But the complication is silicon is more expensive than latex. Silicon is used due to the superior performance of silicon are the synthetic polymer are relatively chemically inert and stable at high and low temperatures. Due to the inert stability of silicon it can survive in the boil and cook cycle for better than latex and there for it has a superior.

Silicon has the atomic no. 14 & the it is hard and the crystalline solid.

Melting point is 1.414 °c

Effects silicon.

It may also lead to the 1 Asthma 2 Interruption of babies cycle sleep.

## B. Breast confusion

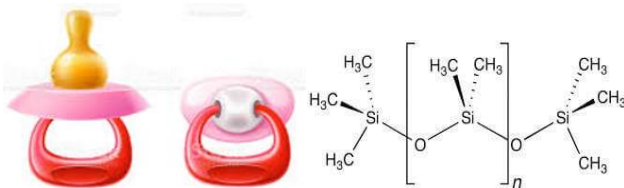


Fig. 5.

### Reaction of pacifiers:

Reaction of pacifier consists of oral when is given to babies orally reacts with the saliva and it is the site of bacteria for the growth of pathogens and it may lead to the candid's and intestinal parasitic infections it's may be of it is media & oral cavity infection.

## 2. Complication with Pacifiers

### 1) Dental health

A systematic review in consistent results regarding the effects of pacifiers on earlier childhood caries suggesting that

there is no correlation. A metallic analysis concluded that pacifier use after three years of age is associated with a higher incidence of malocclusion (the abnormal alignment of the upper and lower teeth). Some studies have been proved that malocclusion is 75% in children who uses pacifiers (or) sucked for more than 48 months. We're has 32% in 32 to 48 months were has 14% above in those above before 24 months. The lower and upper abnormality of the teeth can be occurred by sucking of the pacifier above 48 months.

An American academy of pediatric dentistry recommend that pacifier use is discouraged after the four years.

### 2) Breast feeding

Observational studies & randomized control trial (RCT) showing that pacifier use is associated with early breast weaning have led to concerns. Further investigation (or) further data analyses don't use of pacifier. The investigation group used pacifiers less often but had no significant differences in crying (or) fussing. Suggesting that other soothing methods are as effective as pacifier use.

A more recent RCT on preterm infant didn't demonstrate a significant effect of pacifier use on early weaning.

### 3) Infection

Many studies have been noticed that the pacifiers are often colonized with candida & bacterial organisms (A typical microorganism & non pathological organisms which are colonized together). Some studies found 21 & 40 pacifiers to have a positive culture finding with non-containing the common pathogens of oitiz media.

### Latex pacifiers:

These are mostly colonized with candida and staphylococcus than silicon pacifier.

United Kingdom evaluated pacifier used as a finger sucking at 15 months of age. There 36 percent of infants who uses a pacifier has a higher incidence of (earache & colic) ear infection. We can compare 21 percent sucked fingers.

Whereas 2.7 were the children were used to suck both the finger and pacifier had more wheezing and earaches.

1. Poor health condition.
2. By using of pacifier infant may cause the illness.
3. Pacifier were used to calm sick infants.

### Pacifier and prevention of SIDS:

Sudden infant death syndrome (SIDS) is an unexpected death of infants whose seems to other wise health. In USA estimated that 1500 children under 12 months die from SIDS.

SIDS also known as crib death as it most commonly occurs while the child is sleeping.

It includes:

1. Children with brain abnormalities.
2. Low birth weight (or) respiratory infections.

However, the exact causes are still poorly known.

To minimize the risk of SIDS,

For instance, babies sleep on their side their stomach can have more difficulty in breathing, soft fluffy surfaces are more likely to block air ways, and babies sleeping in bed with parents is hot rounded.

SIDS and asphyxia (is a condition with lack of oxygen) cause the death of 12 months' babies but there is no effective

treatment. [5]-[7]



Fig. 6.

#### *Cause of sudden and unexpected infant death(SUID):*

- Unexplained after complete of (autopsy) and review of circumstances of death and clinical history are classified as (SIDS). SIDS are SUID and account of 80% of such deaths.
- There are inherited disorders of fatty acids oxidation, particularly mutations in the medium chain acyl-co-enzyme.
- Metabolic (or) molecular testing combination with autopsy provides the specific diagnosis.
- The infants have seemingly trivial of infant around the time of death as well as tracheobronchial inflammation and altered serum.

#### *Pros of using pacifiers:*

- Pacifiers are popular for the reason to bring your babies into the comfort zone, help them into get sleep
- Reduce the risk of SIDS.
- Help to fall in sleep.
- It is used as an artificial nipple to forgive the crying period.

#### *Cons of using pacifiers:*

- It may lead to nipples confusion.
- Abnormalities in dental formula.
- Choking have difficulty in breathing.

#### *Breaking the pacifier habit:*

- Avoid using hard words, teasing (or) punishment can upset your child.
- Once you're trying to break the use of pacifier habit of using a pacifier, praise zone baby's efforts.
- Implement a sticker chart to track your babies pressure.
- If your babies has been habit of sucking fingers, distract them (or) keep their hands busy whole the day.

### 3. Conclusion

Pacifiers are the devices which are used for the babies can suck on to help them clam down and sooth. These are the tic devices prepared by the plastic, latex, silicon etc. It is also used as artificial nipple which helps in the babies' comfort, it is also used as a toy, for babies use. Pacifiers were used in the reduction of the SIDS (sudden infant death syndrome). But more than 48 months it leads to dental malocclusion (abnormalities in the upper and lower teeth). Mostly it shouldn't be used for longer time it gets a habit of sucking for baby. These also makes as a nipples confusion at time of feeding of babies.

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