

# Epstein Pearls in Newborn

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## Abstract

Epstein pearls are small; harmless those appear in the baby's mouth during the first weeks and months of development. It is also known as a gingival cyst a type of cyst of the jaws that originates from the dental lamina. Some researchers recently prefer to use Palatal cysts of the newborn instead of Epstein's pearls. These bumps contain Creatine, a protein found naturally in human skin, hair, and nails. Epstein's pearls disappear spontaneously within a few weeks of the baby's birth and there is nothing to worry about.

**Keywords:** Epstein pearls; gingival cyst; harmless cyst of jaws; dental lamina; creatine; palatal cyst

## Introduction

In 1880, Alois Epstein discovered Epstein's pearls [1]. They are palatal cysts that are seen in the median palatal raphe at the junction of the hard and soft palate which are caused by entrapped epithelium during palatal fusion [2]. They are smooth, whitish, keratin-filled 1-4 mm papules. Their incidence is 7.3/1000 live-born male newborn babies [3]. Epstein's pearls resolve in the first 3 months hence treatment is not needed [4,5]. In 1886, Heinrich Bohn described another type of cyst. Alfred Fromm indicated the classification of gingival cysts in 1967[6]. Based on his opinion, gingival cysts of newborns can be classified into Epstein's pearls, Bohn's nodules, and dental lamina cysts [7]. When they appear on the gingiva or dental ridges, they are classified as "Bohn's nodules" or "newborn's gingival cyst" [1,2].

## Epidemiology

Epstein pearls are observed in nearly 60% to 85% of newborn infants. Japanese newborns are most commonly affected (up to 92%), followed by whites and African-Americans [8]. Two other studies reveal Epstein pearls are observed in approximately 80% of newborn infants and are more common in Caucasian infants [9, 10]. In one study, Epstein pearls were more prevalent in infants born to multigravida mothers [9]. Higher birth weight and longer gestation were found to be independent risk factors [9]. One study found that Epstein's pearls were less frequent in post-term babies in comparison with preterm and term ones. A greater rate seen in term babies was reported [11]. A study of oral neonatal lesions in newborns shows that the prevalence in Iran was lower than in other countries. This statistical difference in Iran with other countries may be related to factors such as race, geographical location, and nutrition [12]. Results showed that 52.6% of newborns (316 cases)

had oral lesions, in which 41.5% cases with Epstein's pearls, 22.3% cases with Bohn nodule. The most frequent oral lesion observed was Epstein's pearls [12]. Rivers and his colleagues showed that the newborn in their study had Epstein's pearls (56.0%) [13].

## Differential Diagnosis

After the appearance of the lesion in the oral cavity, it is important to look for a differential diagnosis. The right diagnosis will help the pediatric dentist to reach the evaluation of the condition and manage the patient. Some of the differential diagnoses for Epstein pearls include:

- a) Bohn nodules
- b) Dental lamina cysts
- c) Natal and Neonatal teeth
- d) Congenital epulis
- e) Congenital ranula
- f) Iveolar lymphangioma

## Treatment & management

Epstein pearls don't require any kind of treatment. In many cases, they will disappear within a week or two of birth. The friction in the mouth from breastfeeding, bottle feeding, or using a pacifier could help to break down and eliminate the bump.

## Conclusion

Epstein's pearls appear in the newborn mouth during the first weeks and months of development. They are typically seen on the roof of the mouth and are filled with keratin. They are generally

asymptomatic and do not cause discomfort, and they normally degenerate and disappear into the oral cavity within 2 weeks to 3 months after birth.

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