

## The Incisal Nut Notch

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### Abstract

Tooth abfractions as erosion, attrition and abrasion are ubiquitous and well known to DHCWs. Specific patterns of attrition and abrasion may be associated with habits and causative agents. Described here is the Nut Notch, a typical loss of incisal tooth material derived from habitual cracking and eating unshelled seeds.

**Keywords:** *Tooth Abfractions; Dental Health Care Workers; Nut Notch; Incisal Nut-Notch*

### Abbreviations

DHCW: Dental Health Care Workers; MHCW: Medical Health care workers; N-S: Nut Seeds; INN: Incisal Nut-Notch

### Provenance and Introduction

Dental abfractions as erosion, abrasion and attrition are common and ubiquitous findings by dental health care workers (DHCW). The etiology, causes and clinical manifestations are reported elsewhere [1-3]. Annual global nut production is just over 5 million tons. The United States of America is by far the global leading producer of many nut varieties. Other major exporters of are Turkey and China. Some nuts are used to make vegetable oils, like Sunflower seeds, and most nuts are shelled for consumption, like almonds, ground (pea-)nuts and macadamias. However, some nut-seeds (N-S) are prepared and marketed in their shell, like pumpkin-, and sun-flower seeds [4]. These nut-seeds are consumed with their shells intact, but opened with the teeth.

### Aim of the Study

Described here is the incisal nut-notch (INN), a typical loss of incisal tooth material derived from habitual cracking and eating nut-seeds (N-S) with shells intact.

### The nut-notch

Unshelled nut-seeds (N-S) are usually consumed by the handful rather than one-at-a-time. Typical of N-S is the unshelled pumpkin N-S and sun-flower N-S (Figure 1).



**Figure 1:** Pumpkin unshelled nut-seeds.

One unshelled N-S at a time is placed on the same area between the upper and lower incisor. Biting pressure is applied for the shell to crack open, and release the inside kernel (Figure 2-4).



**Figure 2:** The N-S is applied to the incisal area for cracking open.

Numerous, frequent and habitual cracking with the incisors in the same place causes an attrition that wears away the tooth enamel into the dentine.



**Figure 3:** With chronic repetition the N-S produces a typical incisal nut-notch.



**Figure 4:** The tooth #1-1 (FDI numerology) shows the nut notch. Arrow indicates area affected.

Both the lower and upper incisors may also be afflicted by the N-S attrition, creating the INN (Figure 5).



**Figure 5:** The N-S attrition, on tooth # 2-1, and #3-1(FDI numerology), presenting as a typical incisal nut-notch. This incisal nut-notch was produced by chronic habitual cracking open of sharp sun-flower nut-seeds. arrow indicates affected area.

### Discussion

The incisal nut-notch is often prevalent in those communities who enjoy eating nut-seeds. Often the notch is simply worn away and is decay free. Some cases may complain of pain when biting NS when the incisal nut-notch goes into dentine. Restoration of the INN not-notch defect is facilitated using acid etch and composite restorative material, with appropriate color match, and occlusal

adjustment. Counselling about possible recurrence is advised and eschewing the unshelled variety.

### Confusion with hypoplasia or barrel-shaped notched teeth from congenital syphilis

The incisal nut-notch must not be confused with similar congenital incisal defects. Incisal notches may be formed by congenital incisal and occlusal hypoplasia in individuals with congenital syphilis. These congenital malformations tend to be on both central incisors and first permanent molars in such cases. Hutchinson's Incisors refers to the maxillary central incisors which develop as peg-shaped (narrower at the incisal edge than the cervical) and show a typical crescent-shaped notch on the incisal edges. Mulberry Molars, so called because the first permanent molars show numerous small, under-developed enamel occlusal mini-cusps instead of the usual bold four, rendering the surface a lumpy surface similar to a mulberry [5,6].

### Concluding Remarks

The incisal nut-notch may develop, often without any conscious sensation of pain, and will increase in size progressively over time with repeating the N-S eating habit. To ensure non-recurrence after restoration, counselling to change the habit is indicated. Shelled nuts of all varieties are available and can easily be replaced in diets. Both medical and dental health care workers should be able to spot diagnose this Nut-notch and differentiate it from Hutchinson incisors.

### Conclusion

The incisal nut-notch can easily and quickly be recognized and treated.

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### Ethics Statement

This research did not involve human participants, animal subjects, or any material that requires ethical approval.

### Informed Consent Statement

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