**Sheet No. 1**

**Refer to slide No. 1**

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**Preventive**

Starting the lect. The Dr. descripted the aims of this course, to check them you can refer to the slides. Also you will find the reference book there.

Today we will be talking about prevention of dental trauma.

So Epidemiology, Treatment and Prevention are different aspects of the entire thing but today we will be concentrating on Epidemiology and Prevention measures.

**Epidemiology**: what’s the causes of dental trauma

Most likely it’s **Accidents (Fall)**. Another cause is Sports and Child abuse which we will talk about it later.

The peak incidence of dental trauma caused by falls mostly happens between **1-3 years** of age because at this time children are developing how to walk and run and they don’t have the sense of caution.

In other hand **Sports** counts for **10-59%** of dental injuries most likely boys, but now girls are participating in sports too so the numbers of girls with dental trauma from sports are increasing. Mostly between age of **8-11** years. Mostly the **Upper Centrals.**

The Dr. showed an x-ray of a young pt. with an open apex of centrals and an apexified one with calcium hydroxide mostly happened because of dental trauma and had apexification done to it. We can use MTA as another choice. The problem with open apex is that it’s hard to seal and associated with thin dentine.

FDA Classified it to High and Low Risk sports. The High Risk sports is contact sports like (ice hockey, football and rugby) the low risk is the sports that include minimal or no physical contact. The most common sport that cause dental injury is the **Ice hockey**.

Why is it important to know how to prevent dental trauma ?!

It’s important because treating dental trauma is difficult and it’s a long time process which costs money.

Prevention is classified to:-

1. Primary: preventing the circumstances that leads to the injury.
2. Secondary: reducing the severity of the injury that already happened.
3. Tertiary: giving the optimal treatment and rehabilitation.

**Primary Prevention**

As we said it’s preventing the injury from happening, so in term of playground we need a safe place with surfaces that absorbs impacts and in the same time not slippery.

Also the surface should be at the same level not high in some places and low in other places.

Another way of preventing the injury from happening is treating the overjet in pts. with overjet, because if the pt. has an overjet it means that he has a protruding teeth which means they will be the first thing to come in contact with the ground, so it’s better to treat them.

Another way is by wearing a mouth guard to protect the teeth from dental trauma while playing. There is 3 types of mouth guards we need to know:-

1. **Stock mouth guards**: they come with different shapes, they lack retention because they have high margins so they will cause difficulty in talking and breathing with it.
2. **Mouth formed or boiler bite mouth guards**: it’s a material that we put in boiling water then it get soft then the pt. bites on it and form it around the teeth, it has two disadvantages the first one is that it’s too hot, the second one is that the pt. is the one forming it.

* This first two is not recommended any more.

1. **Custom made mouth guards**: it’s the recommended one to use, it’s by taking an impression to the pt. then we use two techniques to make the mouth guard either by vacuum or by laminated pressure technique. The problem with vacuum technique is that it will stretch causing thin and thick surfaces randomly also it shrinks by **25%** occlusal and **50%** labial and lingual. Labial surfaces is the place where we need to protect the most so if we got a thin layer in the labial surface it will not do its purpose. They tried to solve this problem by using not only one vacuum sheet but multiple ones.

* The best technique to use is the Laminated pressure technique.

So generally the things u need to make sure of in the mouth guards is that it’s comfortable for the pt. and that is has a good thickness labially.

In some sports like football they use face masks to reduce the damage dealt by impact.

**Secondary Prevention**

Here the pt. already have an injury and we need to prevent any other complication.

So we need to check the teeth vitality and mobility and take some x-rays to know if there is any other teeth involved in the trauma and also to check the extend of the damage we have in the tooth or teeth involved (like the extend of the fracture if it’s only enamel or enamel dentine and so on.) and then decide the proper treatment.

For example if we have an exposed dentine we need to cover it with GI to stop any bacteria from getting inside regardless of the aesthetics because it’s a temporary measure. Also if we have an exposed pulp we can do pulp capping or vital pulp therapy using MTA or calcium hydroxide.

In cases of avulsion we re-implant the lost tooth (the quicker we re-implant it the better prognosis)

The Dr. showed a pic of a pt. that had avulsion and the tooth was re-implanted but the pt. came after a year and she asked what might have been the cause of him coming back ?!

The answer is ankylosis, the tooth got stuck to bone.

So when we re-implant it important to monitor the tooth because akylosis will happen and our job is to decrease its severity.

The Dr. asked “what if we lost a permanent tooth and couldn’t re-implant?!”

The answer is that we should maintain the space to prevent any tipping movement of the teeth next to it and prevent over eruption of the opposing one.

If it was a primary tooth we need to pay attention to the permanent one and try to keep it safe from any damage.

**Tertiary Prevention**

It’s giving the best treatment to the pt. to restore not only the aesthetics but also the function of the teeth.

**The End**

**Refer to the slides and book for optimal knowledge of this lect. subject**

**Don’t hesitate to ask me any question if needed**

**Sorry for any mistakes and good luck**

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