



## Perawatan Penyakit & Kelainan Gigit pada Masa Tumbuh Kembang

### SSC & PCC (Stainless Steel Crown & Polycarbonate Crown)



drg. Likky Tiara A., MDSc., Sp.KGA



## Pendahuluan

Tipe-tipe mahkota (crown) untuk gigi  
desidui :

- ◉ PCC
- ◉ SSC
- ◉ Celuloid crown
- ◉ Acrylic crown
- ◉ Gold / metal crown (cast crown)

.... Tipe-tipe crown



SSC

.... Tipe-tipe crown

PCC



## .... Tipe-tipe crown

### ◉ Celuloid Crown



Composite  
Crown

## .... Tipe-tipe crown



Cast Crown

## .... Tipe-tipe crown

- Acrylic Crown

## Stainless Steel Crown (SSC)

- Is a metal shell with preformed anatomy that can be adapted to the tooth
- used to restore primary molars in which the failure of an amalgam or composite restoration is clear in your mind
- The use of SSC is indicated in cases in which the prognosis for long term success of “regular” restorations is reduced by a high possibility of:
  - a. restoration fracture
  - b. recurrent caries.



## SSC (komposisi)

- ◉ **Nickel 72 %**
- ◉ Chromium 14 %
- ◉ Fe 6-10 %
- ◉ Karbon 0,04 %
- ◉ Mangan 0,35 %
- ◉ Silicon 0,2 %

(Pinkham dkk, 2005)

## ... ssc-komposisi

- ◉ Stainless steel crowns (Unitek and Rocky Mountain) crowns composition consist of 17-19% chromium, 9-13% nickel and 0.08-0.1 carbon.
- ◉ Nickel based crowns (Ion Ni-chro from 3M) composition consists of 76% nickel, 8% iron, 0.04 carbon and 0.35% manganese.

## SSC (jenis)

- **Pretrimmed crowns**  
e.g: unitex (3M) SSC, Denovo crowns
- **Precontoured crowns**  
e.g: Ni-Cho Ion Crowns, Unitex SSC (3M)
- **Preveneered SSC**  
→ SSC berbasis composite resin

## Occlusal anatomy only



require trimming,  
Contouring, and crimping

## Occlusal and pre-trimmed



Festooned to allow a line parallel to the gingival crest

Require contouring And crimping.

## Occlusal, pre-trimmed and precontoured



## SSC - indikasi

- Karies/ kerusakan gigi yang melibatkan permukaan yang luas



## ssc-indikasi

- Gigi dengan kerusakan/ defek pada email, spt: hipoplasia email,



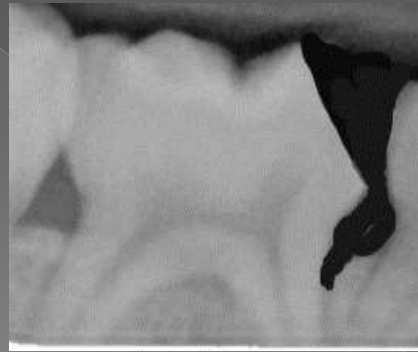
- amelogenesis imperfekta





## ssc-indikasi

- Gigi molar yang fraktur akibat traumatic injury



## ssc-indikasi

- Gigi penyangga pada pembuatan space maintainer



## ssc-indikasi

- ◉ Early childhood caries



## ssc-indikasi

- ◉ Anak dengan insidensi karies yang tinggi



## ssc-indikasi

- ◉ Anak dengan bruxism



## ssc - indikasi

- ◉ Pasca perawatan endodontic:

1. Pulpotomi
2. Pulpektomi

→ Tidak selalu, apabila wkt pergantian gigi < 2 thn bisa dengan tumpatan biasa



## ssc-indikasi

- ◉ Karies pada anak berkebutuhan khusus  
→ ruang OK



## ssc-kontraindikasi

Karies gigi yang luas, apabila:

- Struktur mahkota yang tersisa sedikit/ tinggal akar
- Karies meluas ke gingival sehingga tidak memungkinkan untuk adaptasi yang baik



- Gigi mesial drifting



## ssc-kontraindikasi

- Alergi terhadap Nickel :  
allergic contact dermatitis

## Pre-veneered



## Armamentarium



## Armamentarium for adaptation



114  
plier

Crimping  
plier

Sharp  
scaler

Round  
scissors

## Teknik Preparasi mahkota

### Pre-preparasi

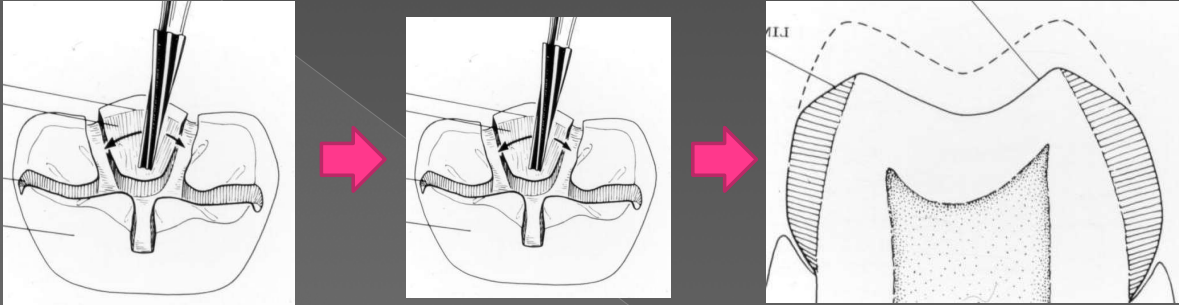
- Caries removal
- Pulp therapy (pulp capping/ pulpotomy/ pulpectomy)
- Rewalling (jk perlu)

### Preparasi

- Pengurangan/ preparasi permukaan Occlusal , buccal and lingual (1-1,5 mm)

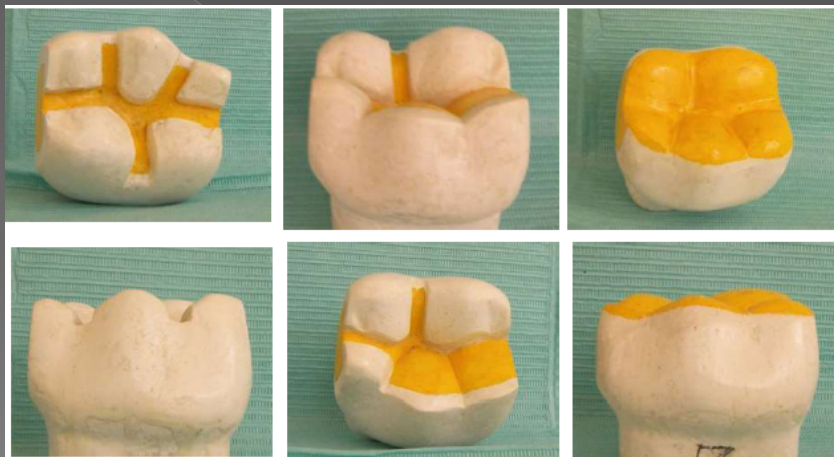


## Preparasi occlusal



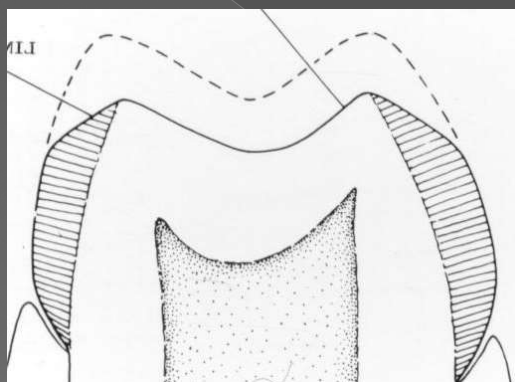
1. Buat parit/ saluran sedalam 1-1,5 mm pd fissur (round bur/ pear shape bur)
2. Kurangi cups/ tonjol dengan kedalaman yang sama spt parit/ saluran tsb (pear shape bur/ bur tapperd ujung datar)

## ... preparasi occlusal





## Preparasi Bucal dan Lingual



Buat *slight bevel*, pada 1/3 bagian dari perm. Occlusal

(bur bevel/ flame)

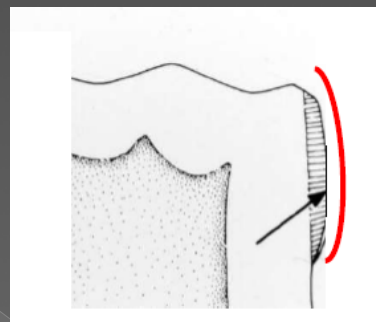
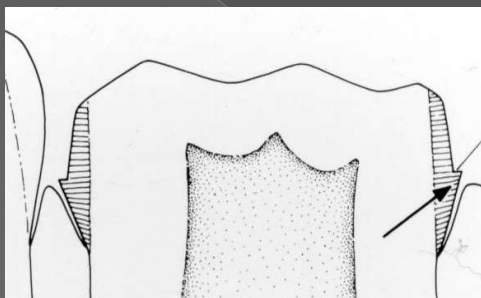
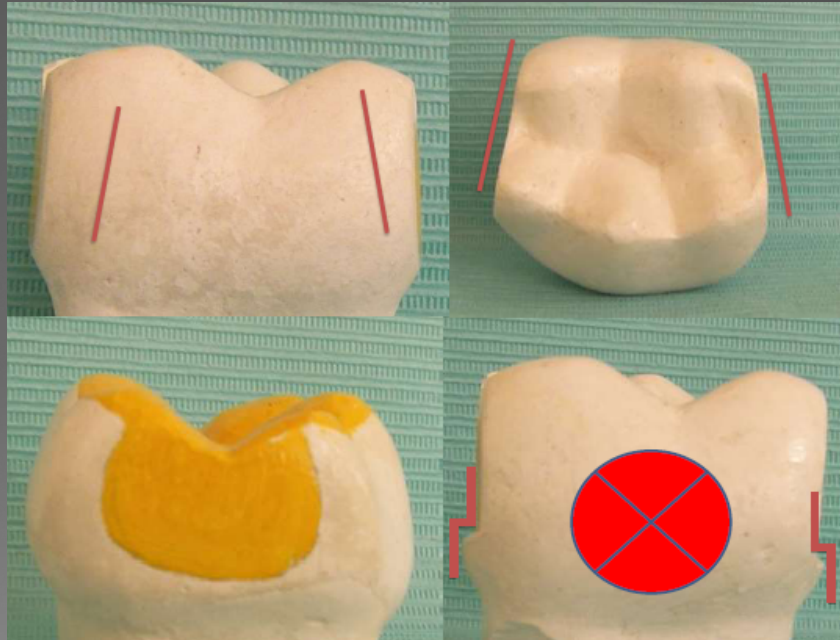


## ... preparasi B-L

- ◉ Tumpulkan tepi-tepi/ sudut yang tajam
- ◉ Permukaan buccal-lingual dengan penonjolan (kecembungan) besar memerlukan pengurangan yang lebih (tidak undercut)

## Preparasi Proximal

- ◉ 169L tapered fissure / thin tapered diamond bur.
- ◉ Preparasi bagian kontak proximal sebanyak 1-1,5 mm dengan gerakan searah.
- ◉ Pada aspek vertikal, dinding proksimal dari arah occlusal dan lingual-palatal/buccal, dibuat sedikit convergen
- ◉ Feather-edge finish line; common error: ledge formation.



## Teknik Fixasi SSC

### 1. DIRECT

dikerjakan langsung pada pasien

### 2. INDIRECT

dilakukan pencetakan → work model → pengepasan ssc → setelah pas kmd try in pada gigi pasien

## Pemilihan SSC

- ◉ Choose the crown that fits MD
- ◉ Crown yang terlalu besar dapat menghalangi erupsi gigi permanen sebelahnya



◉ Terlalu kecil

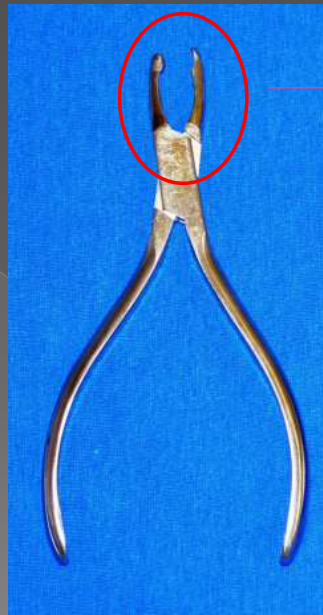
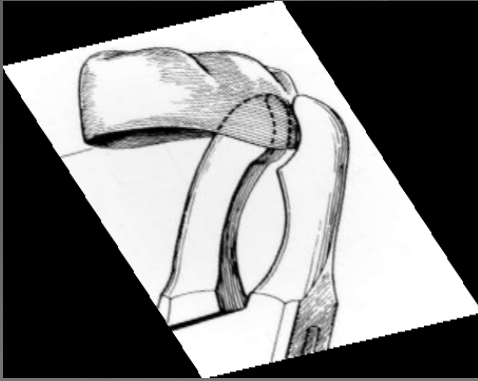


◉ Terlalu besar



# Adaptasi SSC

## ◉ Contouring Pliers

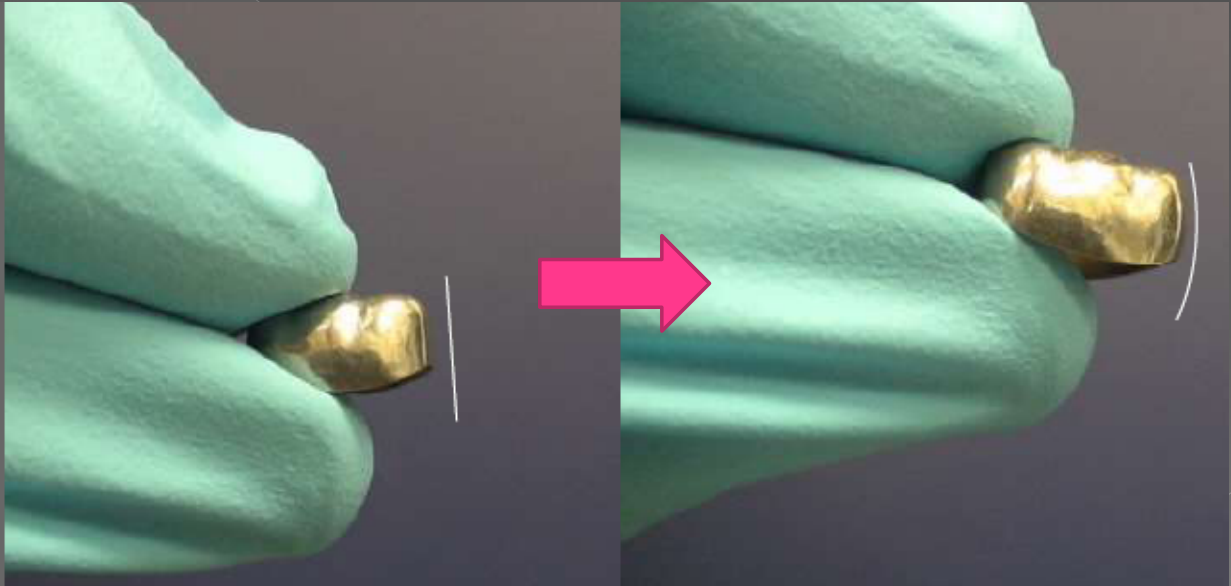


# Buccal-lingual-proximal

Dalam

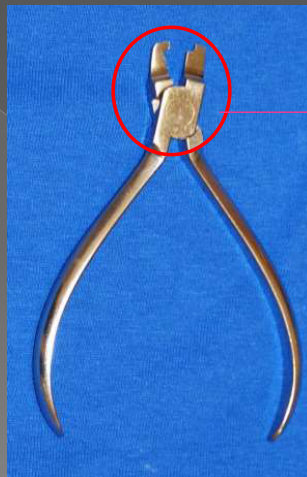
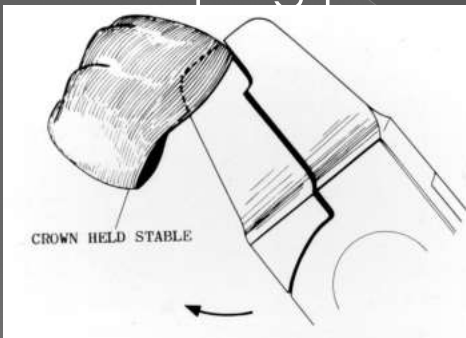


Luar



## ... adaptasi crown

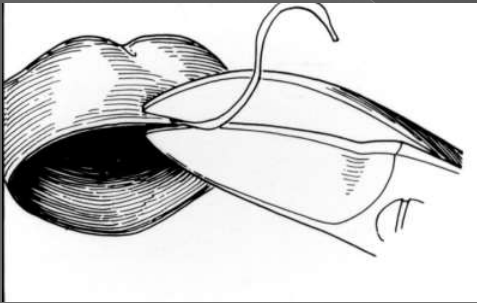
### ◉ Crimping pliers





## ... crown adaptation

### ◉ Crown and Bridge Scissors



- ◉ Crown and bridge scissors digunakan apabila crown terlalu panjang/tinggi dari aspek vertikal
- ◉ Pertama, potong bag. Tepi ssc sesuai panjang gigi (occlusal-servical)
- ◉ Kemudian dilakukan contouring dan crimping
- ◉ Bagian tepi servical masuk 1-1,5 mm ke dlm sulkus gingiva



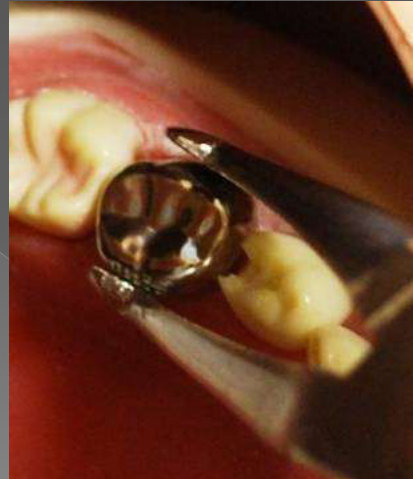
- Polishing menggunakan stone disc., terutama pada bagian tepi servikal,

- Pastikan tidak ada tepi yang tajam



## Try-in

- Mengepaskan crown ke gigi



**Howe Plier: to rotate crowns**

## Cek oklusi



## Sementasi

- Menggunakan sik tipe 1 (lining)



## Complications

- Aspiration (masuk ke saluran pernafasan)



... complication

- Inflamasi gingival dan periodontal



- Allergy  
→ Nickel



gingivitis/  
periodontitis

# POLYCARBONATE CROWN (PcC)

## indication

- Short-term or long-term provisional coverage
- Centrals, laterals, cuspids and bicuspids.

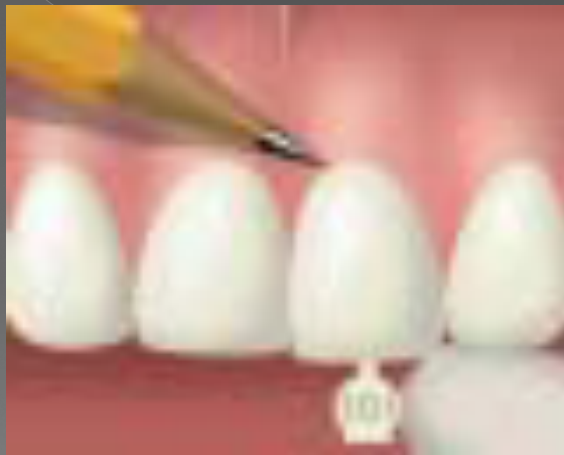
## Crown Selection

- Prepare tooth and determine crown size needed using 3M™ ESPE™ Mold-Guide provided in crown kit.
- Select appropriate crown and trial fit.

## Crown Preparation

- Seat crown on preparation. Mark gingival contour using a pencil. Remove crown and trim 1.0 mm below line using a Crown Scissors, bur or stone.
- Cervical margins can be crimped, if needed, using Crimping Pliers. Reseat and check fit

# Teknik Preparasi PcC





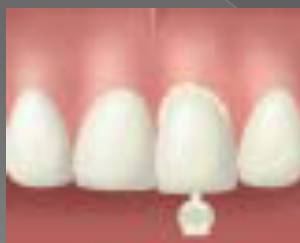


## Crown Lining

- Roughen inner crown surface with diamond or bur to enhance adhesion of an acrylic or resin lining material to crown.
- Line crown with acrylic or resin material to enhance fit and extend wear.



- Seat crown on moistened preparation
- Allow provisional material to set according to manufacturer's directions



- Remove from mouth and trim to finish line using a carbide bur.
- Smooth and polish as required, using Finishing and Polishing Discs and rubber wheel



## Crown Cementation

- Mix cement and fill crown, assuring voids are not present in cement



- Seat crown and allow cement to set. remove excess cement with scaler or explorer
- Floss interproximal areas

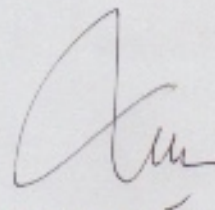


Terima Kasih

**HALAMAN PENGESAHAN**

Kuliah dengan judul :  
**Perawatan Penyakit dan Kelainan Gilut pada Masa Tumbuh Kembang :**  
**SSC dan PCC**  
(Blok 10)

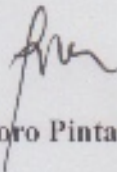
Oleh :



**drg. Likky Tiara A., MDSc, Sp,KGA**

Merupakan kuliah pada Program S-1 PSPDG FKIK UMY

Yogyakarta, 23 Agustus 2017  
Mengetahui,  
**Kaprodi PSPDG FKIK UMY**



**drg. Hastoro Pintadi, Sp.Pros**