Armamentarium

Mirror
Explorer
Air Water Syringe Tip
Suction Tips
Gauze
Q Tip, topical anesthetic
Rubber Dam set up (includes rubber dam, forceps, clamp, floss and frame)
Dry angles
Cotton rolls
High speed hand piece
FG burs 330 (pear shaped)
Slow speed hand piece
LA burs # 2 (smallest round)
T3
Bond (bond dish, micro brush)
Sealant or Flowable composite
Curing light
Procedure

Apply topical anaesthetic to gingiva surrounding tooth to be sealed. Isolate tooth, rubber dam is preferable, although dry angles / cotton is acceptable. Prepare fissures with high or slow speed only if stained and / or sticky. Do not seal in decay!!!
Wash and dry thoroughly.
Apply Beautisealant primer 5 seconds, air dry 5 seconds.
Apply a thin layer of Beautisealant and “scratch” into the grooves. Light cure 10 - 20 seconds (depending on light source).
Armamentarium

As per stainless steel crown or preveneered stainless steel crown

PLUS

Large sharp excavator
Sterile cotton pellets
Sterile gauze
Cotton pliers
Saline
Biodentine
Amalgam carrier
Condenser
Triturator
Procedure

Prepare tooth for full coverage.
Remove gross caries.
Remove roof of pulp chamber.
Incise coronal pulpal tissue with excavator.
Place pressure with sterile cotton pellet or sterile gauze to stop hemorrhage.
Saline to irrigate
Remove pellet, hemorrhage should be minimal.
Mix Biodentine according to manufacturers directions.
Fill chamber with Biodentine and pack gently into canals.
Cement crown.
Armamentarium

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Explorer
Air Water Syringe Tip
Suction Tips
Gauze
Q Tip, topical
Anaesthetic, syringe and needle
Rubber Dam set up (includes rubber dam, forceps, clamp, floss and frame)
High speed hand piece
FG burs 330 (pear shaped), 556 (straight fissure), 169 (tapered fissure)
Slow speed hand piece
LA burs 2, 4, 6, 8 (rounds), 35 (inverted cone) Excavator Condenser
Burnisher: ball and / or anatomical
T3
Flat Etch
Bond (bond dish, micro brush)
Matrix system or T Bands and wedge
Flowable composite
Packable composite
Curing light
Procedure

Apply topical anaesthetic with Q-tip
Anaesthetize
Isolate tooth with rubber dam.
Prepare tooth for restoration.
Wash and dry thoroughly.
Place matrix if interproximal restoration.
Etch 10 seconds. Wash and dry thoroughly.
Bond, scrub the surface of the tooth with a micro rush dipped in bond.
Air dry 5 seconds.
Light cure 10 seconds.
Apply a thin layer of flowable composite - do not cure. This should make up approximately 10% of the fill.
Bulk fill with packable composite. Shape.
Light cure 40 seconds.
Apply flowable composite to entire occlusal surface and light cure 40 seconds.

Remember:
Isthmus must be kept small.
Pulp horns are close to the DEJ.
Keep interproximal walls conservative.
Extend gingival box below contact point.
Retention is important as enamel in primary teeth is approximately 50% thinner than permanent teeth.
Table 2. Caries-risk Assessment Form for 0-5 Years Olds

<table>
<thead>
<tr>
<th>Factors</th>
<th>High Risk</th>
<th>Moderate Risk</th>
<th>Protective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biological</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother/primary caregiver has active caries</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parent/caregiver has low socioeconomic status</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child has &gt;3 between meal sugar-containing snacks or beverages per day</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child is put to bed with a bottle containing natural or added sugar</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child has special health care needs</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Child is a recent immigrant</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Protective</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child receives optimally-fluoridated drinking water or fluoride supplements</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Child has teeth brushed daily with fluoridated toothpaste</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Child receives topical fluoride from health professional</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Child has dental home/regular dental care</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Clinical Findings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child has &gt;1 decayed/missing/filled surfaces (dmfs)</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child has active white spot lesions or enamel defects</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child has elevated mutans streptococci levels</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child has plaque on teeth</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

Circling these conditions that apply to specific patient helps the practitioner and parent understand the factors that contribute to or protect from caries. Risk assessment categorization of low, moderate, or high is based on preponderance of factors for the individual. However, clinical judgement may justify the use of one factor (e.g., frequent exposure to sugar-containing snacks or beverages, more than one dmfs) in determining overall risk.

**Overall assessment of the child's dental caries risk:** High ☐ Moderate ☐ Low ☐
# Caries Risk Assessment Form for Patients 6 Years and Older

**Patient Name:** ____________________________  **Age** _______  **Date:** ________

**Initial / Baseline Exam Date:** ____________________________  **Recall Date:** __________

## 1. High Risk Factors

- a) Visible cavitation (carious) or caries into dentin by radiograph
- b) Caries restored in the past three years
- c) Readily visible heavy plaque on teeth
- d) Frequent (greater than three times daily) between meal snacks of sugars / cooked starch
- e) Saliva — reducing factors:
  1) Hyposalivatory medications
  2) Radiation to head and neck
  3) Systemic reasons, e.g. Sjogren’s Syndrome
- f) Visually inadequate saliva flow.
- g) Appliances present, fixed or removable, e.g. orthodontic brackets / bands / retainer or removable partial denture (s)

## 2. Moderate Risk Factors

- k) Child has developmental problems

## 2 Moderate Risk Factors

- a) Exposed roots
- b) Deep pits & fissures / developmental defects
- c) Interproximal enamel lesions / radiolucencies
- d) Other white spot lesions or occlusal discolouration
- e) Uses recreational drugs
- f) Mother / caregiver has no caries activity

## 3 Protective Factors

- a) Lives / works / school in fluoridated community
- b) Uses fluoride toothpaste daily
- c) Uses fluoride mouthwashes / rinses / gel daily
- d) Salivary flow visually adequate
- e) Uses xylitol gum or mints 4 x day
- f) Mother / caregiver has no caries activity

## Caries Risk Status (circle)

<table>
<thead>
<tr>
<th>High</th>
<th>Moderate</th>
<th>Low</th>
</tr>
</thead>
</table>

## Recommendations Given:

yes ______ no ______  Date Given _____ or Date follow up _______

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Armamentarium

Mirror
Explorer
Air Water Syringe Tip
Suction Tips
Gauze
Q Tip, topical anaesthetic
Rubber Dam set up (includes rubber dam, forceps, clamp, floss and frame)
Ball or anatomical burnisher
Dry angles
Cotton rolls
High speed hand piece
FG burs 330 (pear shaped)
Slow speed hand piece
LA burs # 2 (smallest round)
Etch or Cavity Conditioner
Glass Ionomer Sealant
Glass Ionomer applicator
Triturator
Curing light
Procedure

Apply topical anaesthetic to gingiva surrounding tooth to be clamped.
Isolate tooth, rubber dam is preferable, although dry angles / cotton is acceptable.
Wash and dry thoroughly.
Etch 5 seconds with PO4 etch OR 10 seconds with cavity conditioner.
Wash and dry. Leave tooth slightly moist
Activate and triturate GI capsule for 10 seconds.
Apply GI sealant.
Wet surface of sealant with coat.
Burnish or pack into place. Light cure 40 seconds.
Armamentarium

Mirror
Explorer
Air Water Syringe Tip
Suction Tips
Gauze
Q Tip topical anaesthetic
Syringe, needle, anaesthetic - if necessary
Rubber Dam set up (includes rubber dam, forceps, clamp, floss and frame)
Dry angles
Cotton rolls
High speed hand piece
FG burs 330 (pear shaped)
Slow speed hand piece
LA burs # 2 (smallest round)
Condenser
Ball or anatomical burnisher
T3
Etch or Cavity Conditioner
Glass Ionomer
Glass Ionomer applicator
Bond
Flowable
Triturator
Curing light
Procedure

Apply anaesthetic as required.
Isolate tooth, rubber dam is preferable, although dry angles / cotton is acceptable.
Prepare tooth as required.
Etch 10 seconds with cavity conditioner.
Wash and dry. Leave tooth slightly moist.
Activate and triturate GI capsule for 10 seconds.
Apply GI or RMGI as indicated in a single increment.
Wet surface of instrument with coat.
Burnish or pack into place. Light cure 20 seconds.
If possible, self etch and apply flowable (as a sealant).
Light cure 40 seconds.
Armamentarium

Mirror
Explorer
Air Water Syringe Tip
Suction Tips
Gauze
Q Tip, topical anaesthetic
Anaesthetic, syringe and needle
Rubber Dam set up (includes rubber dam, forceps, clamp, floss and frame)
High speed hand piece
FG burs 556 (straight fissure), 169 (tapered fissure)
Slow speed hand piece
LA burs 8 (round)
T3
NuSmile crowns
Cement
Spatula
Mixing pad
Set up for pulpotomy
Procedure

Apply topical anaesthetic with Q-tip
Anaesthetize
Isolate tooth with rubber dam.
2 - 3 mm occlusal or occlusal reduction with high speed # 556 - follow inclines of cusps.
Bevel buccal and lingual occlusal line angles.
Circumferential reduction - with high speed # 556, followed by high speed # 169.
No ledges!
Remove decay - slow speed # 8.
Treat pulpally if necessary.
Fit crown.
Should be a passive fit.
Check occlusion - critical to prevent fractures.
Remove with T3
Fill 1/2 way with glass ionomer cement.
Seat, clean cement, remember to floss interproximally.
Armamentarium

Mirror
Explorer
Air Water Syringe Tip
Suction TipsGauze
Q Tip, topical anesthetic
Rubber Dam set up (includes rubber dam, forceps, clamp, floss and frame)
Dry angles
Cotton rolls
High speed hand piece
FG burs 330 (pear shaped)
Slow speed hand piece
LA burs # 2 (smallest round)
T3
Etch
Bond (bond dish, micro brush)
Sealant or Flowable composite
Curing light
Procedure

Apply topical anaesthetic to gingiva surrounding tooth to be sealed.
Isolate tooth, rubber dam or isolation system is preferable, although dry angles / cotton is acceptable.

Prepare fissures with high or slow speed _only if stained and/or sticky_.
Do not seal in decay!!!
Wash and dry thoroughly.
Etch 10 seconds.
Wash and dry thoroughly.
Bond, scrub the surface of the tooth with a micro brush dipped in bond.
Apply a thin layer of sealant or flowable composite and "scratch" into the grooves.
Light cure 40 seconds or according to manufacturers instructions.
Armamentarium

Mirror
Explorer
Air Water Syringe Tip
Suction Tips
Gauze
Q Tip topical anaesthetic
Syringe, needle, anaesthetic - if necessary
 Rubber Dam set up (includes rubber dam, forceps, clamp, floss and frame)
Dry angles
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High speed hand piece
FG burs 330 (pear shaped)
Slow speed hand piece
LA burs # 2 (smallest round)
Condenser
Ball or anatomical burnisher
T3
Etch or Cavity Conditioner
Glass Ionomer
Glass Ionomer applicator
Bond
Flowable
Triturator
Curing light
Procedure

Apply anaesthetic as required.
Isolate tooth, rubber dam is preferable, although dry angles / cotton is acceptable.
Prepare tooth as required.
Etch 10 seconds with cavity conditioner.
Wash and dry. Leave tooth slightly moist.
Activate and triturate GI capsule for 10 seconds.
Apply GI or RMGI as indicated in a single increment.
Wet surface of instrument with coat.
Burnish or pack into place. Light cure 20 seconds.
If possible, self etch and apply flowable (as a sealant).
Light cure 40 seconds.
Armamentarium

Mirror
Explorer
Air Water Syringe Tip
Suction Tips
Gauze
Q Tip, topical anaesthetic
Anaesthetic, syringe and needle
Rubber Dam set up (includes rubber dam, forceps, clamp, floss and frame)
High speed hand piece
FG burs 556 (straight fissure), 169 (tapered fissure)
Slow speed hand piece
LA burs 2, 4, 6, 8 (round)
T3
Strip crown forms
Orthodontic separators
Etch and Bond
Flowable composite.
Composite and / or Glass Ionomer
Polishing cups.
Procedure

Apply topical anaesthetic with Q-tip
Anaesthetize
Isolate tooth with rubber dam.
1 - 2 mm incisal reduction with high speed # 556 - follow inclines of cusps.
1 mm circumferential reduction - with high speed # 556, followed by high speed # 169.

Feather edges, no ledges.
Remove decay - slow speed # 8 or as needed.
Place orthodontic separators sub gingivally to retract and for hemorrhage control.
Fit crowns.
All crowns must fit simultaneously.
Create vent on incisal edge of crown form.
Etch, wash and dry all teeth to be restored.
Bond, air dry and cure 10 seconds.
Place a thin layer of flowable composite - do not cure.
Fill crown forms with composite.
Seat fully, remove excess.
Cure, cure, cure!
Remove strip crown forms and orthodontic separators.
Finish and polish.
Armamentarium

Mirror
Explorer
Air Water Syringe Tip
Suction Tips
Gauze
Q Tip, topical anaesthetic
Anaesthetic, syringe and needle
Rubber Dam set up (includes rubber dam, forceps, clamp, floss and frame)
High speed hand piece
FG burs: NuSmile diamonds
Slow speed hand piece
LA burs 8 (round)
T3
NuSmile crowns
Cement
Spatula
Mixing pad
Set up for pulpotomy
Procedure

Apply topical anaesthetic with Q-tip.

Anaesthetize

Isolate tooth with rubber dam.

2 mm incisal reduction with - high speed tapered diamond NuSmile bur.

Bevel buccal and lingual occlusal line angles.

Circumferential reduction - with high speed tapered diamond NuSmile bur, followed by

high speed tapered fissure diamond NuSmile bur.

No ledges!

Remove decay - slow speed # 8.

Treat pulpally if necessary.

Fit crown with pink try in coping.

Should be a passive fit.

Check occlusion - critical to prevent fractures.

Remove with T3

Fill 1/2 way with Ceramir (Doxa) cement.

Seat, clean cement, remember to floss interproximally.
GIOMER RESTORATION
POSTERIOR

Armamentarium

Mirror
Explorer
Air Water Syringe Tip
Suction Tips
Gauze
Q Tip, topical
Anaesthetic, syringe and needle
Rubber Dam set up (includes rubber dam, forceps, clamp, floss and frame)
High speed hand piece
FG burs 330 (pear shaped), 556 (straight fissure), 169 (tapered fissure)
Slow speed hand piece
LA burs 2, 4, 6, 8 (rounds), 35 (inverted cone)
Excavator
Condenser
Burnisher: ball and / or anatomicalT3
Flat
Etch
Bond (bond dish, micro brush)
Matrix system or T Bands and wedge
Flowable composite
Packable composite
Curing light
Procedure

Apply topical anaesthetic with Q-tip
Anaesthetize
Isolate tooth with rubber dam.
Prepare tooth for restoration.
Wash and dry thoroughly.
Place matrix if interproximal restoration.
Etch 10 seconds. Wash and dry thoroughly.
Bond, scrub the surface of the tooth with a micro rush dipped in bond.
Air dry 5 seconds.
Light cure 10 seconds.
Apply a thin layer of flowable composite - do not cure. This should make up approximately 10% of the fill.
Bulk fill with packable composite. Shape.
Light cure 40 seconds.
Apply flowable composite to entire occlusal surface and light cure 40 seconds.
Remember:
Isthmus must be kept small.
Pulp horns are close to the DEJ.
Keep interproximal walls conservative.
Extend gingival box below contact point.
Retention is important as enamel in primary teeth is approximately 50% thinner than permanent teeth.
IRMG1 (ACTIVA) RESTORATION

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Air Water Syringe Tip
Suction Tips
Gauze
Q Tip, topical
Anaesthetic, syringe and needle
Rubber Dam set up (includes rubber dam, forceps, clamp, floss and frame)
High speed hand piece
FG burs 330 (pear shaped), 556 (straight fissure), 169 (tapered fissure)
Slow speed hand piece
LA burs 2, 4, 6, 8 (rounds), 35 (inverted cone)
Excavator
Condenser
Burnisher: ball and / or anatomical
T3
Flat
Etch
Matrix system or T Bands and wedge
Activa base / liner
Activa restorative
Curing light
Procedure

Apply topical anaesthetic with Q-tip
Anaesthetize
Isolate tooth with rubber dam.
Prepare tooth for restoration.
Wash and dry thoroughly.
Place matrix if interproximal restoration.
Etch 10 seconds. Wash and dry thoroughly.
Apply a thin layer of liner - cure.
Fill with restorative.
Shape.
Light cure 40 seconds.

Remember:
Isthmus must be kept small.
Pulp horns are close to the DEJ.
Keep interproximal walls conservative.
Extend gingival box below contact point.
Retention is important as enamel in primary teeth is approximately 50% thinner than permanent teeth.
Recommended Products / Manufacturers
Carla Cohn DMD
www.drcarlaceohn.com
www.catapultelite.com
drcohn@shaw.ca

Bisco
www.bisco.com
Theracal
ACE All Bond

DMG
www.dmg-america.com
Icon
Kolorcz Clearshield
Kolorcz Prophylaxis Paste

Doxa
www.ceramirus.com
Ceramir Cement

Garrison
www.garrisonodontal.com
Composilight 3D XR

GCA
www.gcamerica.com
Equia
Fuji II LC
Fuji IX
Fuji Triage
Gradia
Kalore
G-erional Flow

Ivoclar
www.ivoclarvivadent.com
Ceravital

NuSmile
www.nusmilecrowns.com
NuSmile ZR (zirconia) anterior and posterior
NuSmile signature anterior and posterior

Pulpdent
www.pulpdent.com
Activa liner
Activa restorative
Embrace

SDI
www.sdi.com.au
ConSeal
Riva Bond
Riva LC
Riva Luting
Riva Protect
Riva SC

Septodont
www.septodont.com
Biodentine

Shofu
www.shofu.com
Beautifil II
Beautifil Flow
Beautibond
Beautiseal
One Gloss

Space Maintainers Lab
www.smldent.com
strip crown forms
chairside band and loops
extrusion forceps

Tokuyama
www.tokuyama-us.com
Bond Force
Estelite Sigma Flow Quick
Estelite Sigma Quick Composite

Triodont
www.triodent.com
Triodont V3 matrix

VOCO
www.voco.com
Grandio
Grandioso
Grandio Seal
Futurabond
ProFluorid
xTra Fil
xTra Fil Base