

Best Practice 2018:
Molar Incisiv Hypomineralisation



Stina Ekström, Specialisttandläkare pedodonti



Definition

"hypomineralisation av systemisk ursprung som skadar en eller upp till fyra av de första permanenta molarerna och ofta även forknippas med defekta permanenta incisiver"



2018-09-07 Best Practice del 1 2018 - MIH, Stina Ekström Jalevik B. 

Prevalens

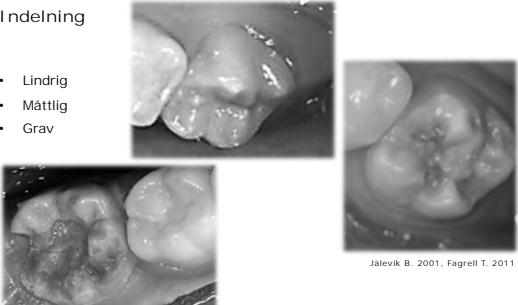
- 6 – 25% i europeiska studier
- 20% av svenska barn



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Indelning

- Lindrig
- Måttlig
- Grav



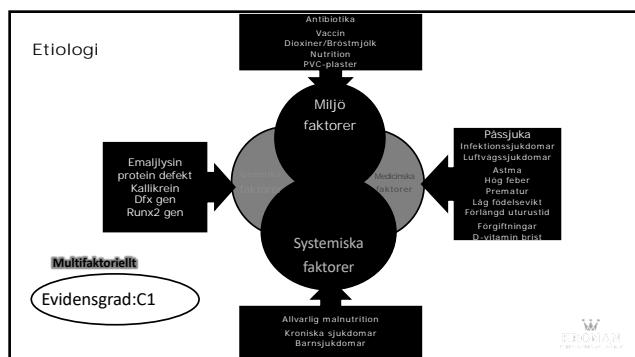
2018-09-07 Best Practice del 1 2018 - MIH, Stina Ekström Jalevik B. 2001, Fagrell T. 2011 

Best Practice 2015 - MIH

- Molar Incisor Hypomineralization 2565
- Review 211
- Review + CT 229



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Kronologisk tandutvecklingsstörning

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MI H och Behandling

TM of FPM	Molar Incisor Hypomineralization		Controls		<i>P</i>
	<i>N</i> children with TM (%)	Mean no of TM (SD)	<i>N</i> children with TM (%)	Mean no of TM (SD)	
Filings, 1999–2008	26 (89)	2.7 (2.0)	12 (32)	0.7 (1.3)	<0.001*
Extractions, 1999–2008	7 (28)	0.7 (1.4)	1 (3)	0.03 (0.2)	<0.01*
Filings & extractions, 1999–2008	27 (93)	3.4 (2.4)	12 (32)	0.8 (1.3)	<0.001*

FPM, first permanent molar.
*Student's *t*-test for differences between mean numbers of TM.

Jalevik B, Klingberg G. 2002

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Behandling

- Fluortandkräm

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Behandling

- Fluortandkräm

Evidensgrad: A1

Groups	%Extent of demineralization (mean ± S.D.)	95% Confidence interval
Group A (tooth mouse)	19.60 ± 7.8 ^a	13.9–25.2
Group B (control)	28.1 ± 7 ^b	23.1–33.1

Within a column, values with similar lower case letters are statistically equivalent.

Groups	%Extent of remineralization (mean ± S.D.)	95% Confidence interval
Group C (tooth mouse)	7.15 ± 3 ^a	3.9–10.4
Group D (control)	4.1 ± 1.5 ^b	3.2–5

Within a column, values with similar lower case letters are statistically equivalent.

Rahiotis C, Vougiouklakis G. 2007

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Behandling

- Fluorlackning

Evidensgrad: C1

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Behandling

- Fluorlackning

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Nordström A et al 2010

Behandling

- Blekning

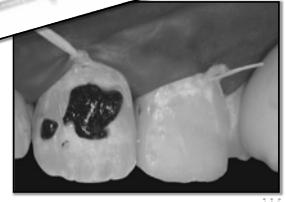


Evidensgrad: C1

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Behandling

- Microabration

Evidensgrad: C1

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Behandling

- Resin infiltrations teknik

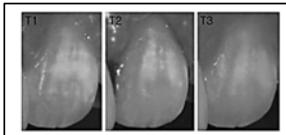



J. J. Lasfargues 2013

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Behandling

- Resin infiltrations teknik



Type 1 (completely masked %)	Type 2 (partially masked %)	Type 3 (unchanged %)	Sum
DDO 5 (2%)	7 (35%)	8 (40%)	20
POD 11 (61)	6 (33)	1 (6)	18

DDE, developmental defects of enamel; POD, post-orthodontic decoloration.

Evidensgrad: C2

2018-09-07 Kim S. et al. 2011, Crombie F. et al. 2014

Behandling

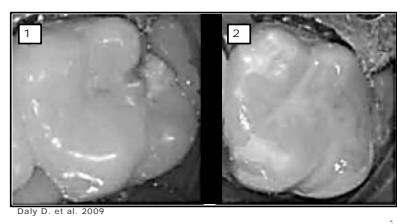
- Fissurförseglings



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Behandling

- Fissurförseglings



2018-09-07 Daly D. et al. 2009

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Behandling

- Fissurförseglings

Figure 1. Retention rate of fissure sealants in Group A (adhesive FSI) and B (conventional etch and seal FS).

Year	Group A (adhesive FSI)	Group B (conventional etch and seal FS)
1st Year	100% (fully sealed), 100% (partly sealed), 79% (unsealed)	79% (fully sealed), 47% (partly sealed), 23% (unsealed)
2nd Year	100% (fully sealed), 100% (partly sealed), 30% (unsealed)	79% (fully sealed), 47% (partly sealed), 23% (unsealed)
3rd Year	100% (fully sealed), 100% (partly sealed), 30% (unsealed)	79% (fully sealed), 47% (partly sealed), 23% (unsealed)
4th Year	100% (fully sealed), 100% (partly sealed), 30% (unsealed)	79% (fully sealed), 47% (partly sealed), 23% (unsealed)

Lygidakis NA. et al. 2009
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Behandling

- Fissurförseglings med resin-baserade material har en kariesförebyggande effekt.
- Det vetenskapliga underlaget är inte tillräckligt för att bedöma om fissurförseglings med glasjonomercement har en kariesförebyggande effekt.

Evidensgrad: C1

SBU, 2002
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Behandling

- Fyllnadsterapi
- Temporära restauranter

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Behandling

- Fyllnadsterapi
- Temporära restauranter

Grindfjord M.
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Grindfjord M.



Behandling

- Fyllnadsterapi
- Stålkronor

Daly D. et al. 2009
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Behandling

- Fyllnadsterapi
- Glasjonomercement

da Costa-Silva CM et al. 2012
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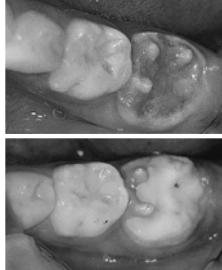
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da Costa-Silva CM et al. 2012



Behandling

- Fyllnadsterapi
- Glasjonomercement



Grindefjord M.

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Behandling

- Fyllnadsterapi
- Glasjonomercement

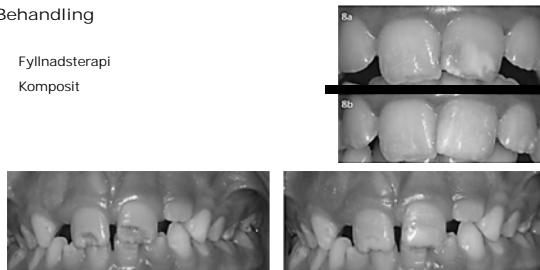
Evidensgrad: C1



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Behandling

- Fyllnadsterapi
- Komposit

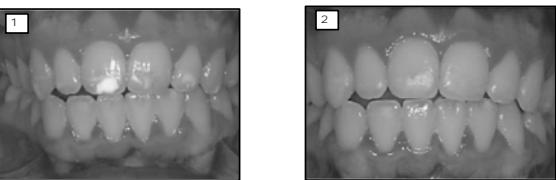


Daly D. et al. 2009, Sales Scheffel DL et al. 2014

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Behandling

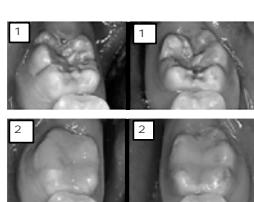
- Fyllnadsterapi
- Komposit



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Behandling

- Fyllnadsterapi
- Komposit



Knapp V. et al. 2009 Lonkar RD. 2012

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Evidensgrad: C1

Behandling

- Kronterapi



2018-09-07 Best Practice del 1 2018 - MIH, Stina Ekström

Evidensgrad: B1

Behandling

- Kronterapi

Table. Quality Assessment According to California Dental Association Criteria in 27 Patients with Amelogenesis Imperfектa at the 2-y Follow-up.

Quality after 2 y	Crowns, n	
	Procera	IPS e.max Press
Excellent	108	94
Acceptable	8	11
In need of adjustment	3	2
Immediate danger to tooth	0	1
Total	119	108

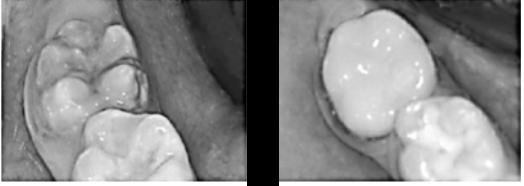
Poussette Lundgren G, et al. 2015

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Behandling

- Kronterapi



Gronwall S. 2015

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Behandling

- Extraktion



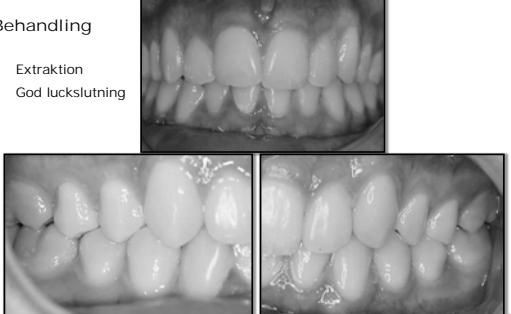
Evidensgrad: C1

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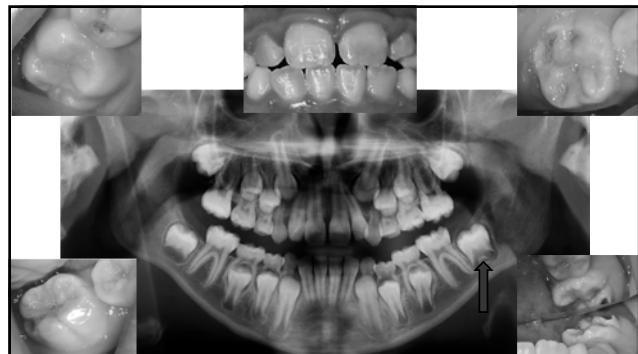
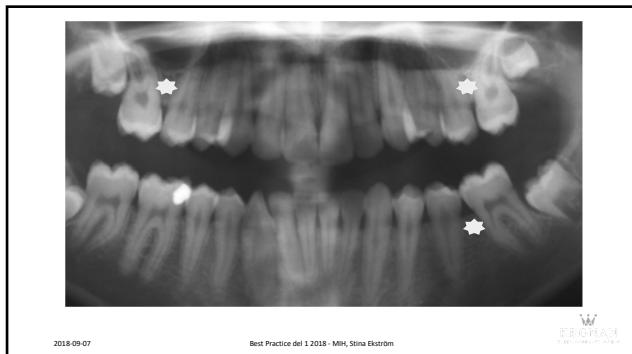
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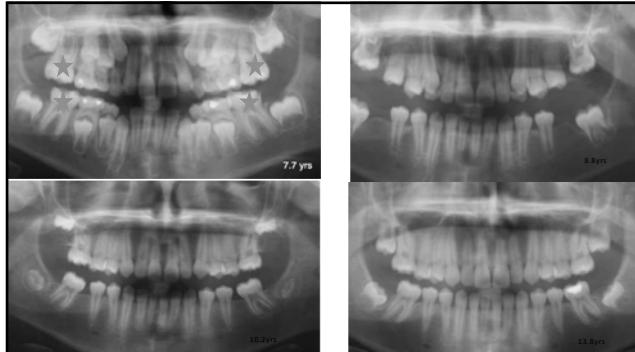
- Extraktion
- God luckslutning



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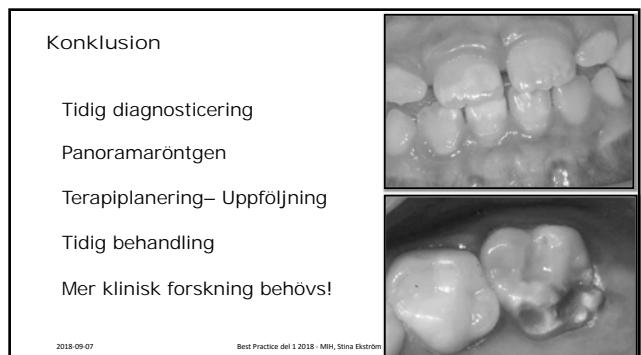
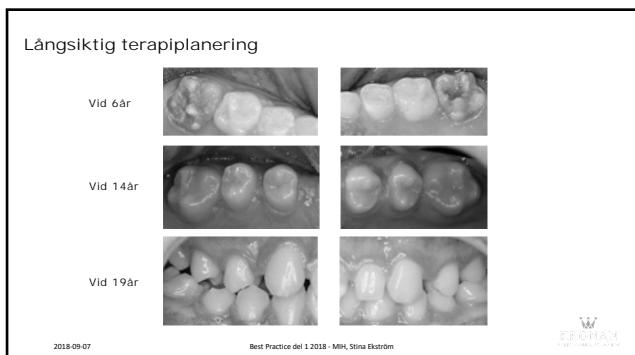
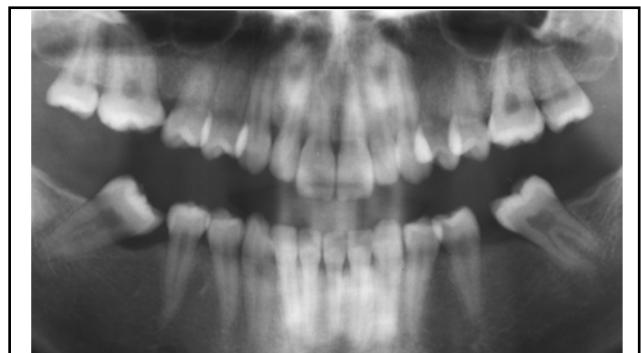
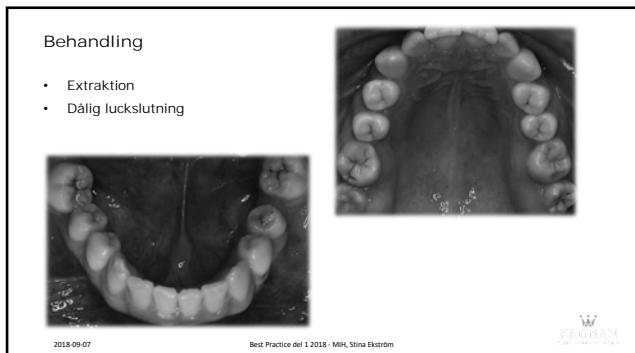


God luckslutning, 36 + 46 extr vid 10 års ålder



4 år efter extraktion 2018-09-07 4 år efter extraktion 2018-09-07

KROGHAM



Poor PJ - these teeth often hurt, making it hard to eat some foods and to do a good job with the toothbrush.

"Molar Hypomin is a sort of birth defect, where the tooth isn't made properly before it's born into your mouth," said the Dentist.

TACK!

stina.ekstrom@btvkronan.se

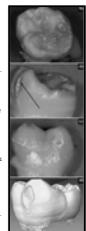
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M
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Referenser

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KRONAN
BARNSPESIALISTTANDVÄRDEN

Barnspecialisttandvården Kronan
Sturegatan 2, 14 tr | 172 31 Sundbyberg
08-564 854 65 | info@btvkronan.se | www.btvkronan.se

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