



**בעד מעקב שמרני**

**CIN 2-3**

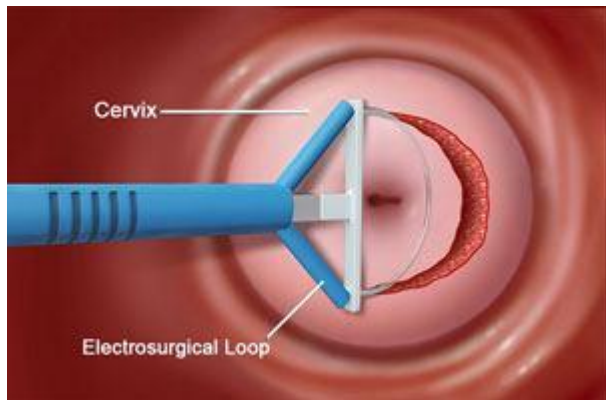
**בהריון**

ד"ר עופרי פלד

גינקו-אונקולוגיה

בי"ח וולפסון

# מטרות הקוניזציה



LLETZ  
Large Loop Excision Of the  
Transformation Zone

טיפול בנגעים טרום סרטניים

1

אבחנה וטיפול בסרטן צוואר  
הרחם בשלב מוקדם

2

# FIGO staging of cervical cancer



**IA1**

**≤3 mm**

**IA2**

**>3 mm - ≤5 mm**



**IB1**

**≥5 mm - <2 cm**

**IB2**

**2 - 4 cm**

**IB3**

**≥4 cm**

# סיבוכים לא מיילדותיים

במהלך הפעולה:

**דימום < 500 מ"ל**

FIRST TRIMESTER – RARE

SECOND TRIMESTER- 5%

THIRD TRIMESTER- 10%

במהלך החודש לאחר הפעולה:

**1.5%** חום/ זיהום

**2%** דימום במהלך

החודש לאחר הפעולה

**16%** כאב בטן תחתונה



**Cochrane**  
**Library**

Cochrane Database of Systematic Reviews

סיבוכים  
מיילדותיים

## Obstetric outcomes after conservative treatment for cervical intraepithelial lesions and early invasive disease (Review)

Kyrgiou M, Athanasiou A, Kalliala IEJ, Paraskevaïdi M, Mitra A, Martin-Hirsch PPL, Arbyn M, Bennett P, Paraskevaïdis E 2017

**Comparison:** women with no treatment

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	Nº of participants (studies)
	Risk with [comparison]	Risk with [intervention]		
PTB (< 37 w)	Study population		RR 1.75 (1.57 to 1.96)	5,242,917 (59 observational studies)
	54 per 1000	95 per 1000 (85 to 106)		
PTB (< 32 to 34 w)	Study population		RR 2.25 (1.79 to 2.82)	3,793,874 (24 observational studies)
	14 per 1000	32 per 1000 (26 to 40)		
PTB (< 28 to 30 w)	Study population		RR 2.23 (1.55 to 3.22)	3,910,629 (8 observational studies)
	3 per 1000	7 per 1000 (5 to 11)		
PTB (< 37 w) - Repeat cones versus No Treatment	Study population		RR 3.78 (2.65 to 5.39)	1,317,284 (11 observational studies)
	41 per 1000	156 per 1000 (109 to 222)		
pPROM (<3 7 w)	Study population		RR 2.36 (1.76 to 3.17)	477,011 (21 observational studies)
	34 per 1000	80 per 1000 (60 to 108)		
PTB (< 37 w) - Depth ≤ 10 mm to	Study population		RR 1.54 (1.09 to 2.18)	550,929 (8 observational studies)
	34 per 1000	53 per 1000		

34W>ידה  $\times 2.23$

pPROM<37w  $\times 1.54$

**Patient or population:** women with known obstetric outcomes

**Setting:** hospitals/clinics

**Intervention:** treatment for CIN before pregnancy

**Comparison:** women with no treatment

Outcomes	Anticipated absolute effects* (95% CI)		Relative effect (95% CI)	N° of participants (studies)	Quality of the evidence (GRADE)	Comments
	Risk with No Treatment	Risk with Treatment				
LBW (< 2500 g) - Treatment versus No Treatment	Study population		RR 1.81 (1.58 to 2.07)	1,348,206 (30 observational studies)	⊕⊕⊕⊕ VERY LOW <sup>1</sup>	
	37 per 1000	66 per 1000 (58 to 76)				
NICU Admission - Treatment versus No Treatment	Study population		RR 1.45 (1.16 to 1.81)	2557 (8 observational studies)	⊕⊕⊕⊕ LOW <sup>2</sup>	
	89 per 1000	130 per 1000 (104 to 162)				
Perinatal Mortality - Treatment versus No Treatment	Study population		RR 1.51 (1.13 to 2.03)	1,659,433 (23 observational studies)	⊕⊕⊕⊕ LOW <sup>3</sup>	
	7 per 1000	11 per 1000 (8 to 14)				

\*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

LBW < 2500g X **1.81**

NICU X **1.45**

PERINATAL MORTALITY X **1.51**

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
6 PTB (<28-30w)-Analysis by treatment modality	8	3.910629E6	Risk Ratio (IV, Random, 95% CI)	2.43 [1.69, 3.49]
6.1 CKC vs No Treatment	2	7118	Risk Ratio (IV, Random, 95% CI)	4.52 [0.83, 24.54]
6.2 NETZ vs No Treatment	1	7399	Risk Ratio (IV, Random, 95% CI)	14.74 [4.50, 48.32]
6.3 LLETZ vs No Treatment	3	502778	Risk Ratio (IV, Random, 95% CI)	2.57 [1.97, 3.35]
23 PTB (<37w)-Depth≤10-12mm	8	550929	Risk Ratio (IV, Random, 95% CI)	1.54 [1.09, 2.18]
23.1 LC vs No Treatment	1	105	Risk Ratio (IV, Random, 95% CI)	0.52 [0.06, 4.83]
23.2 LLETZ vs No Treatment	3	544907	Risk Ratio (IV, Random, 95% CI)	2.01 [1.28, 3.15]
23.3 Excisional Treatment NOS vs No Treatment	4	5917	Risk Ratio (IV, Random, 95% CI)	1.20 [0.78, 1.85]
24 PTB (<37w)-Depth≥10-12mm	8	552711	Risk Ratio (IV, Random, 95% CI)	1.93 [1.62, 2.31]
24.1 LC vs No Treatment	1	87	Risk Ratio (IV, Random, 95% CI)	4.64 [1.20, 17.88]
24.2 LLETZ vs No Treatment	3	546134	Risk Ratio (IV, Random, 95% CI)	2.29 [1.57, 3.34]

אותם הממצאים גם בשימוש בלולאה  
! חשמלית - LLETZ

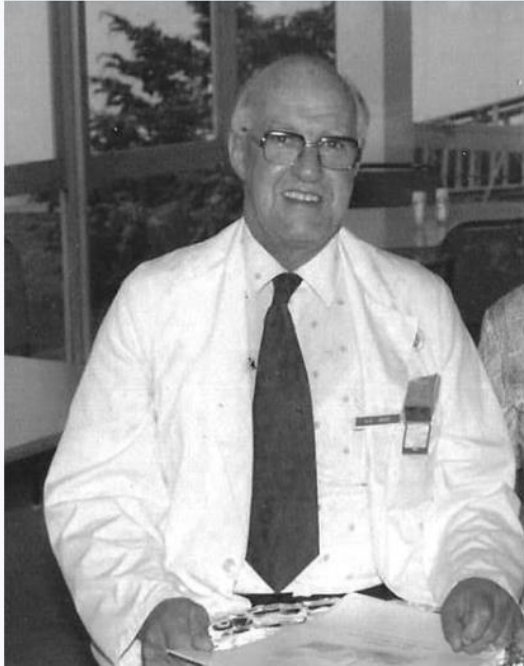
PTL < 28-30W x2.57







**George Herbert "Herb" Green**



# "The Unfortunate Experiment"

**1955-1976**

> [Obstet Gynecol. 1984 Oct;64\(4\):451-8.](#)

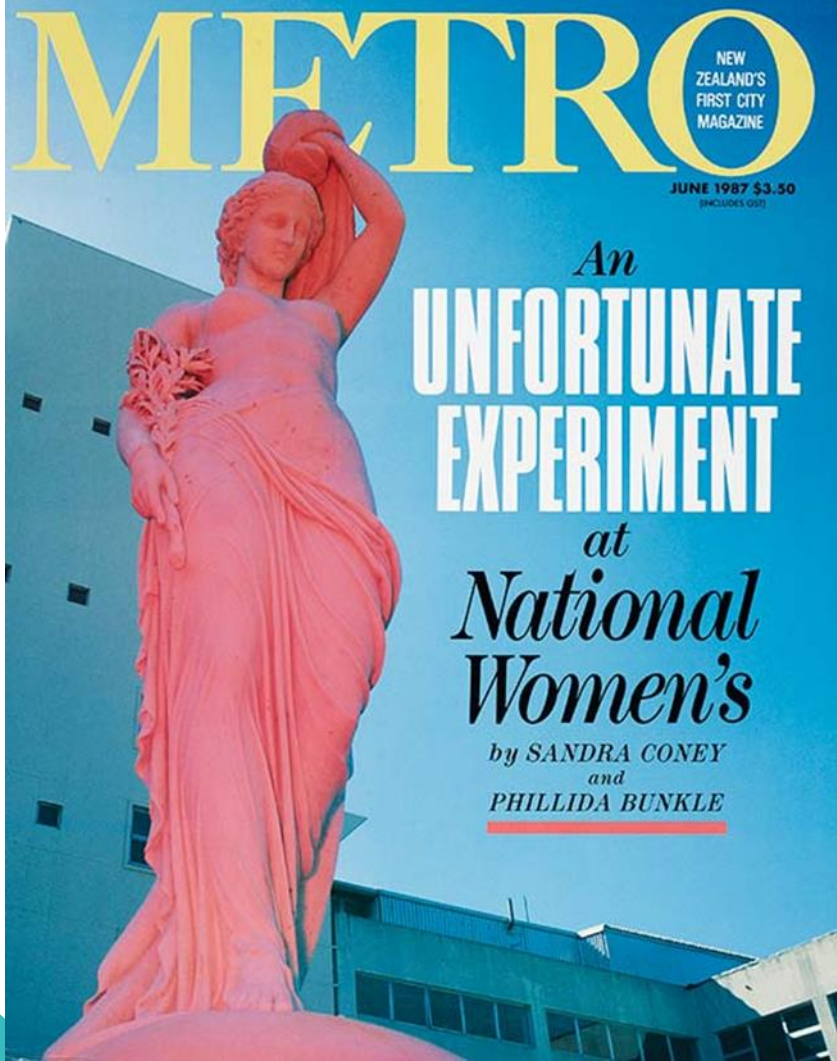
## The invasive potential of carcinoma in situ of the cervix

[W A McIndoe, M R McLean, R W Jones, P R Mullins](#)

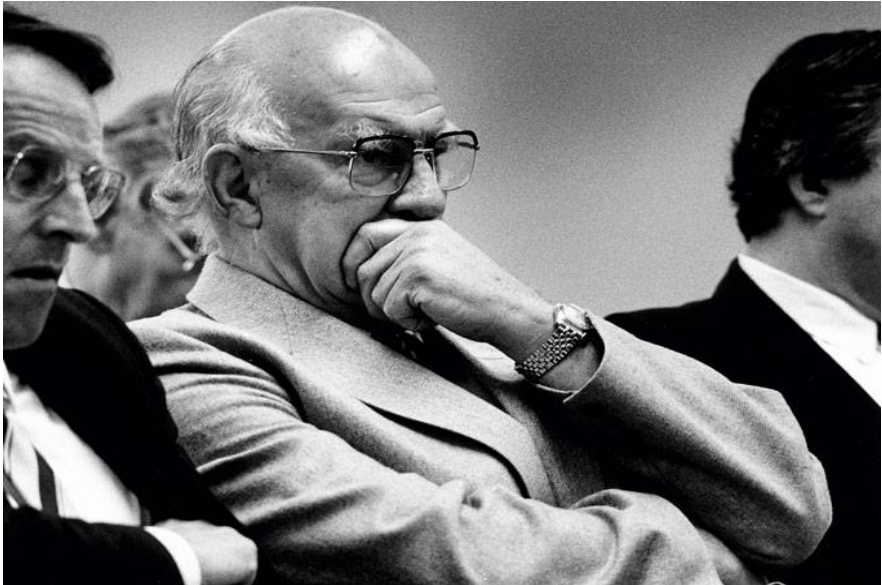
PMID: 6483293

### Abstract

Nine hundred and forty-eight patients with carcinoma in situ (CIS) of the cervix diagnosed histologically have been followed from five to 28 years. Among the 817 patients who had normal cytology follow-up, 12 (1.5%) developed invasive carcinoma. A second group of 131 patients continued to produce abnormal cytology consistent with cervical neoplasia, and 29 (22%) of them developed invasive carcinoma of the cervix or vaginal vault. Patients with continuing abnormal cytology after initial management of CIS of the cervix are 24.8 times more likely to develop invasive carcinoma than women who have normal follow-up cytology. Further, when compared with the population at large, the chances of patients with normal follow-up cytology developing invasive cervical or vaginal vault carcinoma increase 3.2-fold over women who have never had CIS of the cervix.



1987



# Natural history of cervical neoplasia and risk of invasive cancer in women with cervical intraepithelial neoplasia 3: a retrospective cohort study

Margaret R E McCredie, Katrina J Sharples, Charlotte Paul, Judith Baranyai, Gabriele Medley, Ronald W Jones, David C G Skegg

*Lancet Oncol* 2008; 9: 425–34

**Funding** Cancer Society of New Zealand,

Modelling approaches have been used to estimate the lifetime risk of cervical cancer in women with untreated CIN3 as 15–23% in Sweden<sup>17</sup> and 40% (about 1% annually) in England and Wales.<sup>18</sup> Our estimate of 31% at 30 years is close to the estimate for England and Wales.

	All women, n	Women with cancer, n	Median follow-up, years (range)	Crude incidence per 100 000 woman-years (95% CI)	Percentage* (95% CI) of women with cancer of cervix or vaginal vault after:			
					5 years	10 years	20 years	30 years
<b>Minimum disturbance of CIN3 lesion (initial treatment by punch or wedge biopsy—group B)†</b>								
(i) All women irrespective of cytology in 6–24 months after initial treatment	143	31	10·8 (0·3–42·3)	1535 (1080–2183)	13·0 (8·2–20·4)	20·0 (13·7–28·7)	26·1 (18·6–35·9)	31·3 (22·7–42·3)
(ii) Subset with persistent disease in 6–24 months after initial treatment‡	92	31	7·6 (0·3–40·7)	2887 (2030–4105)	19·9 (12·6–30·5)	31·1 (21·7–43·4)	41·5 (30·2–55·0)	50·3 (37·3–64·9)

# Natural history of histologically confirmed high grade cervical intraepithelial neoplasia during pregnancy: meta-analysis

Table 1 Characteristics of included studies

Study	Country	Design of study	Study span	Size of sample	Methods of postpartum diagnosis	Point of postpartum follow-up
Hong <i>et al</i> 2019 <sup>36</sup>	Korea	Retrospective unicentre cohort study	2005–2014	160	Cervical cytology or/and colposcopy-directed biopsy; cervical excision	10 weeks
Schuster <i>et al</i> 2018 <sup>35</sup>	Australia	Retrospective unicentre cohort study	2010–2015	35	Cervical cytology or/and colposcopy-directed biopsy; cervical excision	6–8 weeks
Mailath-Pokorny <i>et al</i> 2016 <sup>34</sup>	Austria	Retrospective unicentre cohort study	2005–2010	34	Cervical cytology or/and colposcopy-directed biopsy	8 weeks
Wu <i>et al</i> 2014 <sup>33</sup>	China	Prospective unicentre cohort study	2007–2010	114	Cervical cytology or/and colposcopy-directed biopsy; cervical excision	8–12 weeks
Karrberg <i>et al</i> 2013 <sup>32</sup>	Sweden	Prospective unicentre cohort study	2001–2009	130	Cervical cytology or/and colposcopy-directed biopsy; cervical excision	10–12 weeks
Ueda <i>et al</i> 2009 <sup>31</sup>	Japan	Retrospective unicentre cohort study	1994–2007	32	Cervical cytology and colposcopy-directed biopsy	12 weeks
Serati <i>et al</i> 2008 <sup>30</sup>	Italy	Prospective unicentre cohort study	2003–2007	36	Colposcopy-directed biopsy or cervical excision	8–12 weeks
Vlahos <i>et al</i> 2002 <sup>29</sup>	Greece	Retrospective unicentre cohort study	1988–1998	78	Colposcopy-directed biopsy or cervical excision	8–12 weeks
Yost <i>et al</i> 1999 <sup>28</sup>	USA	Prospective unicentre cohort study	1995–1996	153	Cervical cytology and colposcopy-directed biopsy	6–12 weeks
Grimm <i>et al</i> 2020 <sup>37</sup>	Germany	Retrospective unicentre cohort study	2001–2017	60	Cervical cytology or/and colposcopy-directed biopsy; cervical excision	8–12 weeks

## HGSIL בהריון



מעקב 12 שב'  
לאחר הלידה.



832  
נשים.



Persistence 59%



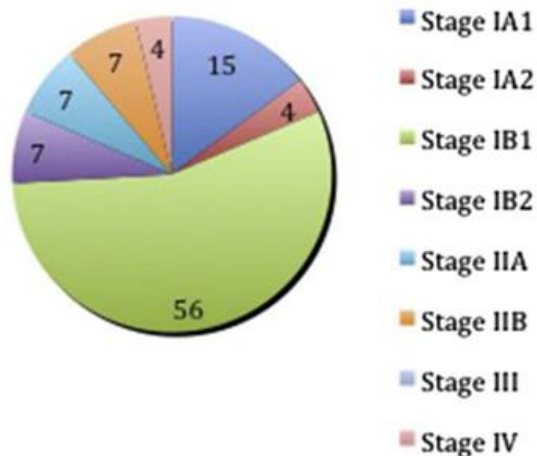
Regression 40%

רק 1% התקדמות ל  
CERVICAL CANCER

Bigelow CA, et al. Management and outcome of cervical cancer diagnosed in pregnancy. Am J Obstet Gynecol 2017;216:276.e1-6

**FIGURE**

**Distribution of cervical cancer stage among pregnant patients**



Cancer diagnosis by stage in pregnant patients diagnosed with cervical cancer during index pregnancy.

*Bigelow et al. Management and outcome of cervical cancer in pregnancy. Am J Obstet Gynecol 2017.*

# עיכוב בטיפול

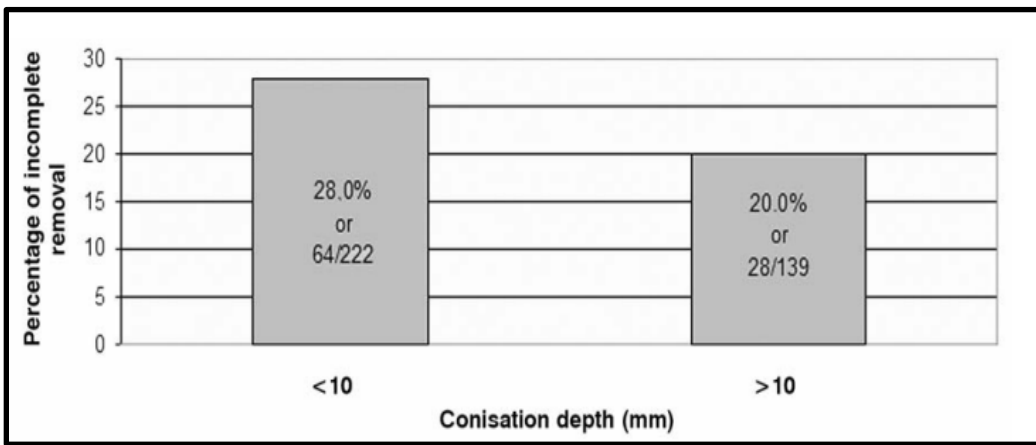
28 נשים אובחנו עם סרטן צוואר הרחם במהלך ההריון

בהשוואה ל 52 נשים עם אותם נתונים דמוגרפים ואותו שלב מחלה

למרות דחיית הטיפול ב 20 שבועות בממוצע (לעומת 7 שבועות לא בהריון)

**אין הבדלים בפרוגנוזה (במעקב של 3.5 שנים)**

# שארית



**25%** מהדגימות, הנגע מגיע לשולי החתך.

ב Cervical Ca IA1:

קוניזציה חוזרת

**<70%**

women of reproductive age (17-40 years old).

	TOTAL	HGSIL	Cancer (IA1)
Patients (n)	232/361 (64.3%)	118/166 (71.1%)	7/14 (50%)
Mean age (years)	30.5	29.6	35.2
Range (years)	(17-40)	(18-40)	(25-40)
Cone margins			
Free:	183 (78.8%)	87 (73.7%)	2 (28.6%)
Non-free	49 (21.1%)	31 (26.3%)	5 (71.4%)
Mean conisation depth (mm) (range)	11.0 (1-27)	11.1 (1-27)	15.1 (5-25)
>10 mm (n, %)	89 (38.3%)	6 (38.9%)	6 (85.7%)

HGSIL = CONIZATION DURING PREGNANCY?

1% סרטן בשלב מוקדם, סמוי  
או שמתפתח במהלך ההריון

קוניזציה אחת, לרוב, אינה  
מספקת כטיפול.

בשלבים מוקדמים, הפרגונוזה  
אינה גרועה יותר אם דוחים  
טיפול לאחר הלידה.

40% ריפוי טבעי.

+

59% יהיה CIN3  
ש"יחכה" לטיפול לאחר  
ההריון.





# תודה

ד"ר עופרי פלד  
גינקו-אונקולוגיה  
בי"ח וולפסון