

UNIVERSITA' DI VERONA
FACOLTA' DI MEDICINA E CHIRURGIA
PERCORSO STRAORDINARIO LAUREA IN FISIOTERAPIA
A.A. 2011 – 2012



Insegnamento: **METODOLOGIE PER LA FISIOTERAPIA** dott.ssa Cristina Scumà

Modulo: **METODOLOGIA DELLA FISIOTERAPIA BASATA SULLE EVIDENZE** dott. Simone Cecchetto

Lezione: **FISIOTERAPIA DEL PAVIMENTO PELVICO:
DAL QUESITO CLINICO ALLA RICERCA E IMPIEGO
DELLE EVIDENZE SCIENTIFICHE**

Dott. Mag. Arianna Bortolami
Fisioterapista
www.pelvicfloor.it

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**1. ANATOMIA, FISIOLOGIA, PATOLOGIA DEL
PAVIMENTO PELVICO**

2. FISIOTERAPIA DEL PAVIMENTO PELVICO

3. ELABORAZIONE DEL QUESITO CLINICO

4. UTILIZZO DELLE BANCHE DATI

5. RISPOSTA FINALE

1. ANATOMIA, FISILOGIA, PATOLOGIA DEL PAVIMENTO PELVICO

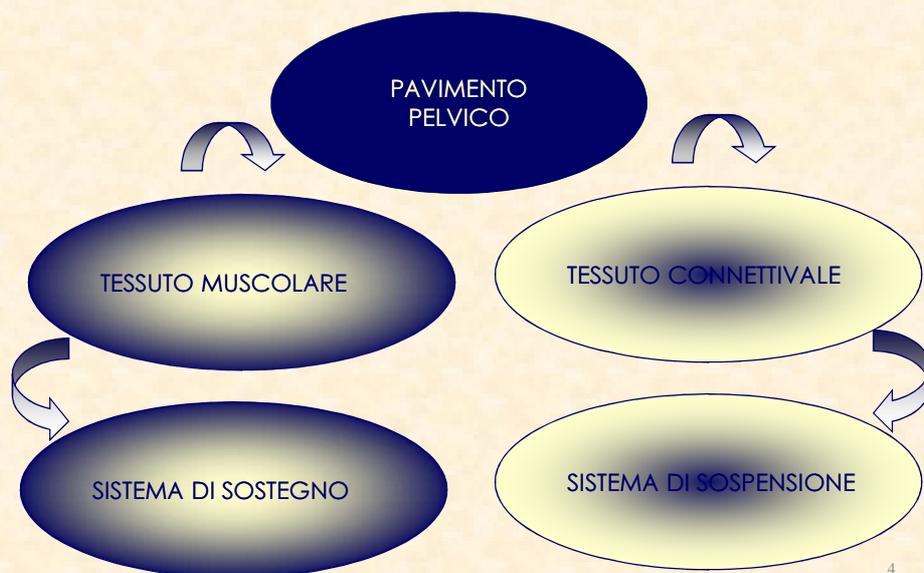
ZONA GENITO-URINARIA-ANALE

Definizione

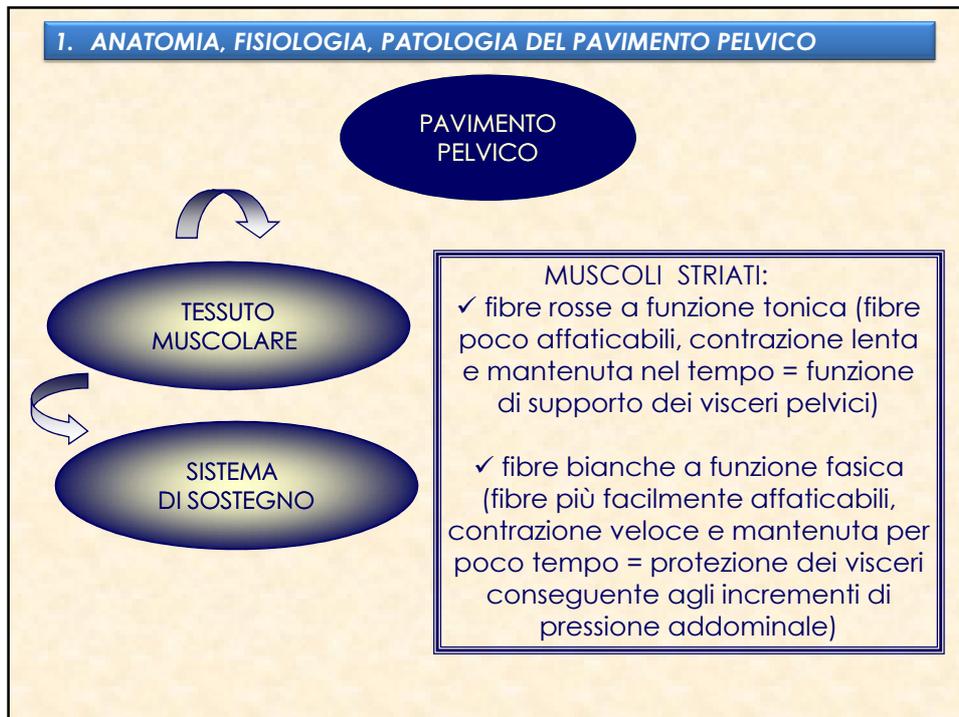
Il pavimento pelvico può essere definito una entità funzionale, vale a dire un insieme di strutture anatomiche che cooperano in sinergia per svolgere una o più funzioni.

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DAL QUESITO CLINICO ALLA RICERCA E IMPIEGO DELLE EVIDENZE SCIENTIFICHE
Dott. Mag. Arianna Borlolami

1. ANATOMIA, FISILOGIA, PATOLOGIA DEL PAVIMENTO PELVICO



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1. ANATOMIA, FISIOLOGIA, PATOLOGIA DEL PAVIMENTO PELVICO

NEUROANATOMIA

1. SISTEMA NERVOSO PERIFERICO

a. INNERVAZIONE SOMATICA

- nervo pudendo (radici S2 – S4)

b. INNERVAZIONE NEUROVEGETATIVA

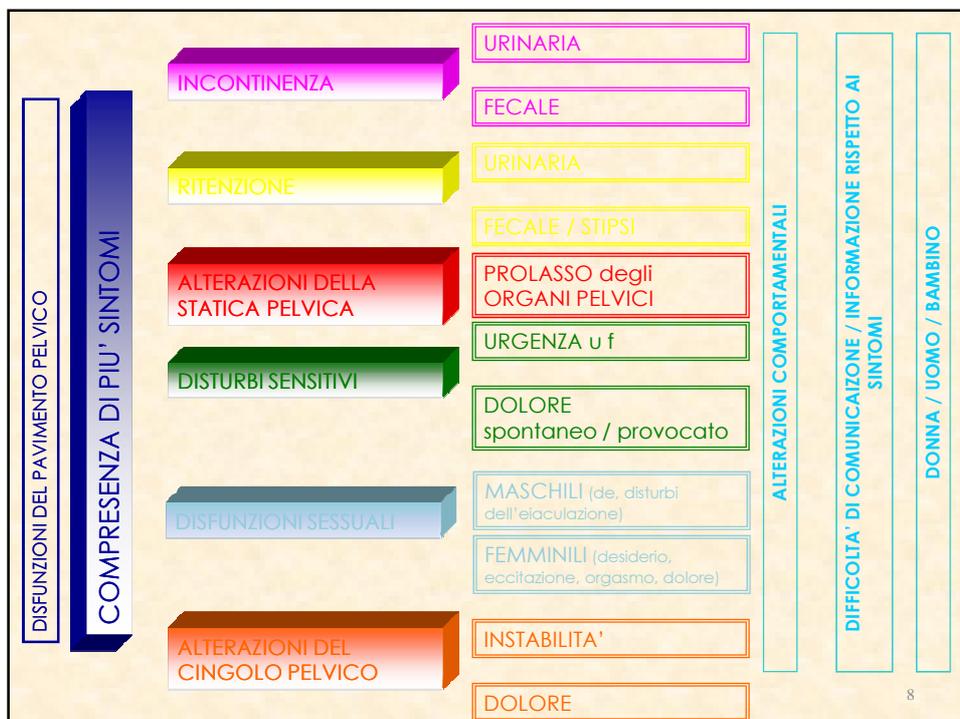
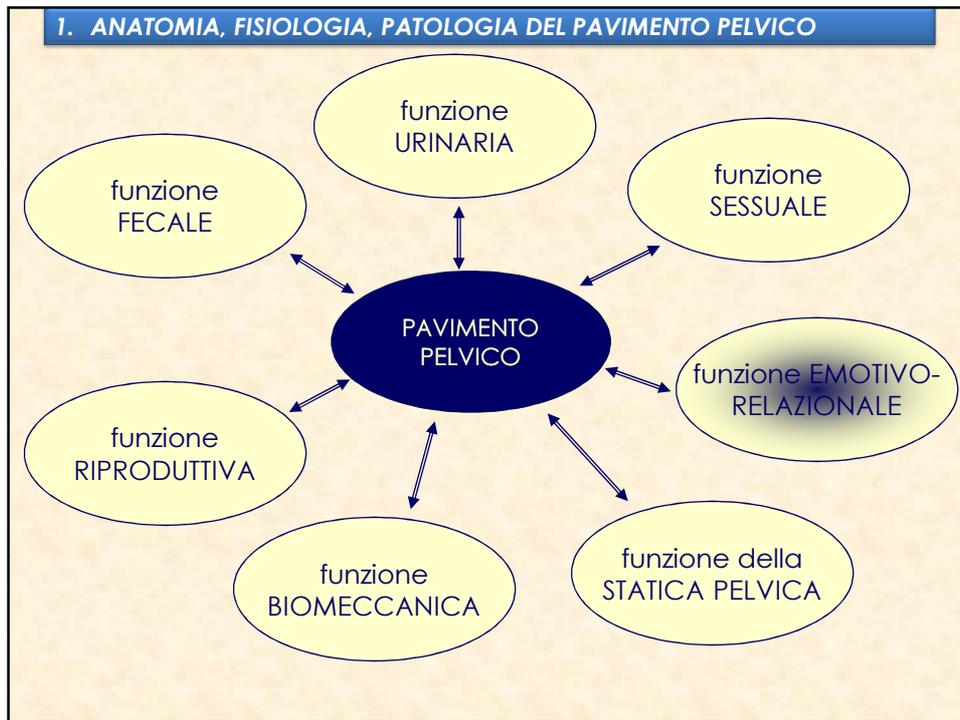
- parasimpatica (radici S2 – S4; nervo pelvico); contrazione del detrusore, del retto e della parte superiore del canale anale)
- ortosimpatica (radici T10– L2; nervo ipogastrico); mantenimento tono sfinteri interni (vescicale e anale)

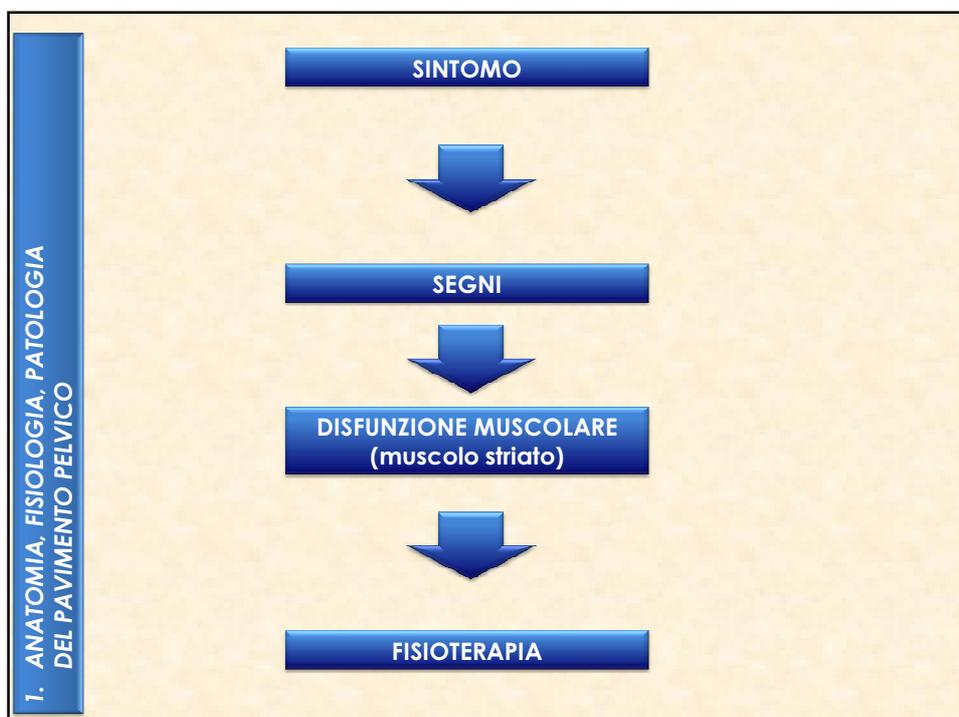
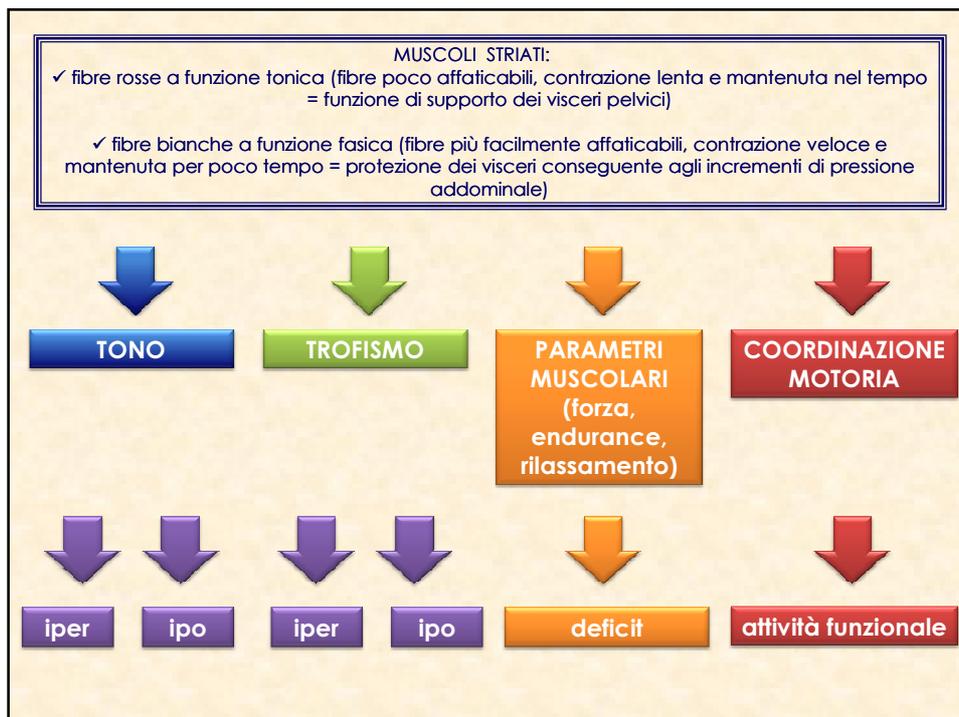
2. SISTEMA NERVOSO CENTRALE

a. INNERVAZIONE CENTRALE

- area motoria detrusoriale (lobo frontale)
- area motoria dello sfintere uretrale (lobulo paracentrale)
- centro ponto-mesencefalico (per la minzione)
- si ammette in letteratura con l'interpretazione dell'homunculus una scarsa rappresentazione del pavimento pelvico

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1. ANATOMIA, FISILOGIA, PATOLOGIA DEL PAVIMENTO PELVICO

RUOLO DELLA FISIOTERAPIA:

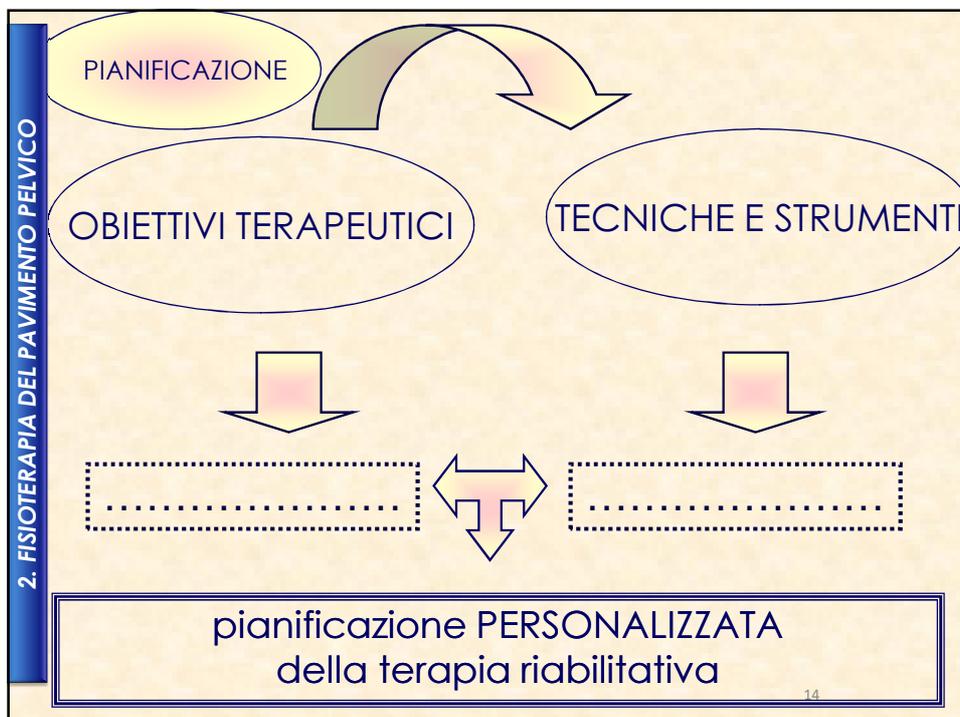


Figura 1.1 Interazioni tra le componenti dell'International Classification of Functioning, Disability and Health (ICF) (modificata da Organizzazione Mondiale della Sanità, 2001).

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2. FISIOTERAPIA DEL PAVIMENTO PELVICO





2. FISIOTERAPIA DEL PAVIMENTO PELVICO

TRATTAMENTO

TRATTAMENTO
Tecniche e Strumenti

- Esercizio Terapeutico (chinesiterapia, pelvic floor muscle training)
- Terapia Manuale
- Autotrattamento e Trattamento Domiciliare
- Trattamento Comportamentale e modificazioni dello stile di vita
- Biofeedback
- Stimolazione Elettrica Intravaginale / Intra Anale
- Coni Vaginali
- Dilatatori vaginali
- Dilatatori anali
- Ausili e presidi per l'incontinenza
- Prodotti topici non farmacologici
- Prodotti per la motilità intestinale

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2. FISIOTERAPIA DEL PAVIMENTO PELVICO

VALUTAZIONE DEI
RISULTATI

- aspetto **soggettivo**, costituito dai sintomi riferiti e dal loro impatto sulla qualità di vita (colloquio verbale, questionari, confronto)
- aspetto **oggettivo** (segni, es.: parametri muscolari del pavimento pelvico), (test, strumenti, scale di valutazione muscolare, ecc.)
- termine della terapia, momento individuato quando, a fronte di pianificazione e di utilizzo di tecniche e strumenti, le modificazioni di sintomi e segni possono essere considerate definitivi
- eventuale invio verso altri approcci terapeutici

3. QUESITO CLINICO

P.I.C.O.:

Paziente o popolazione: pazienti di sesso femminile in età fertile affette da incontinenza urinaria da sforzo

Intervento: esercizio terapeutico (pelvic floor muscle training) biofeedback (bfb), stimolazione elettrica funzionale (sef), coni vaginali (vaginal weight)

Comparazione: all

Outcome: 1. qualità della vita, misurata con indicatori (Sf 36, King's Health Questionnaire)
2. quantità della perdita urinaria (pad test 1/24 h)

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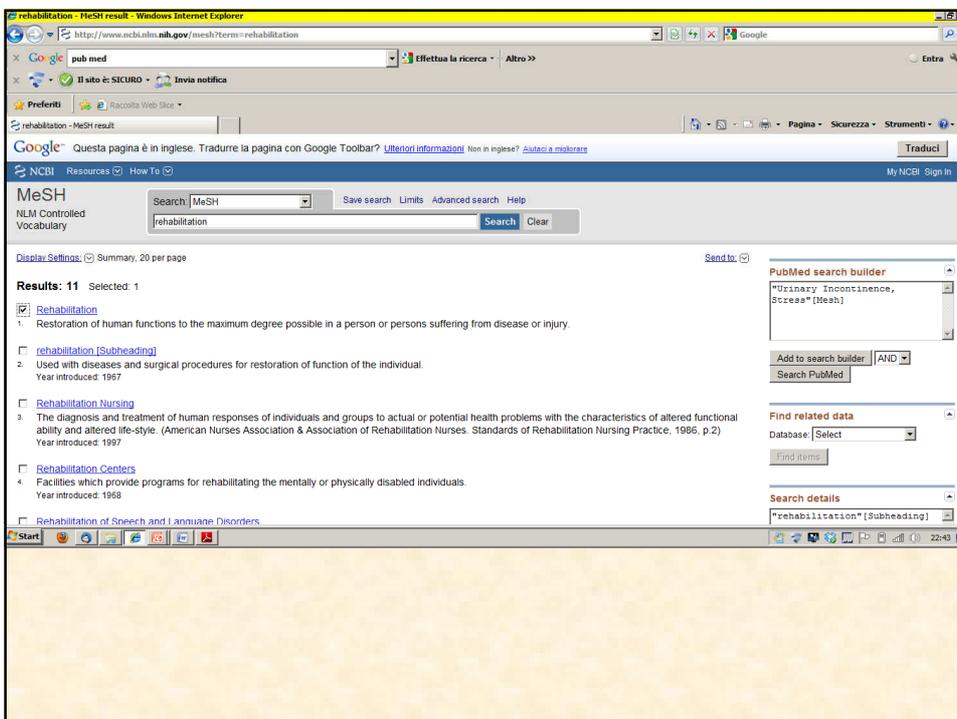
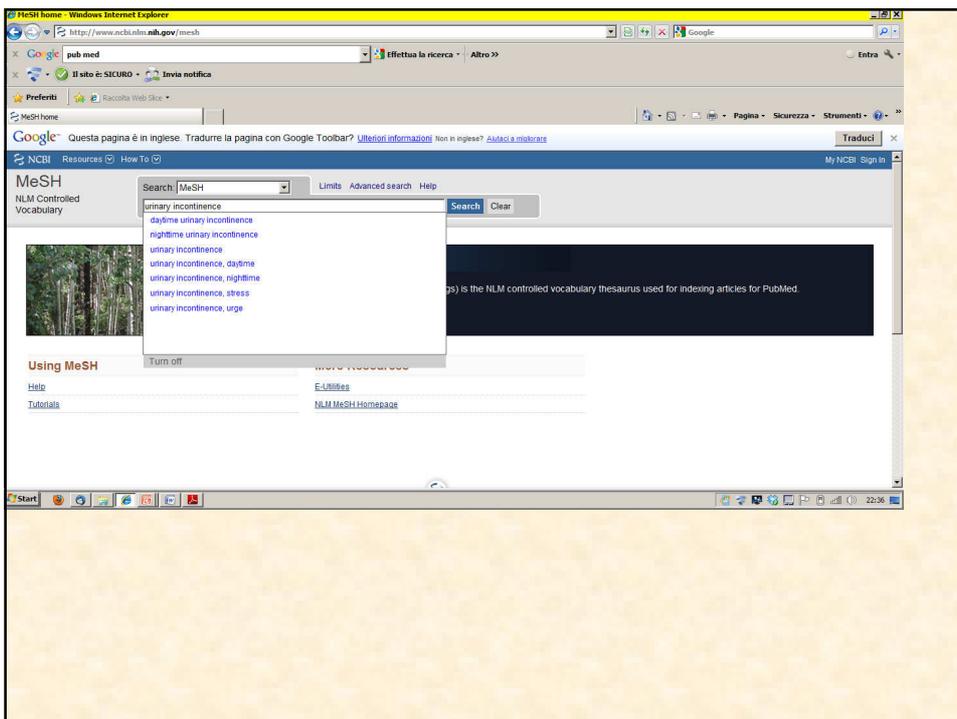
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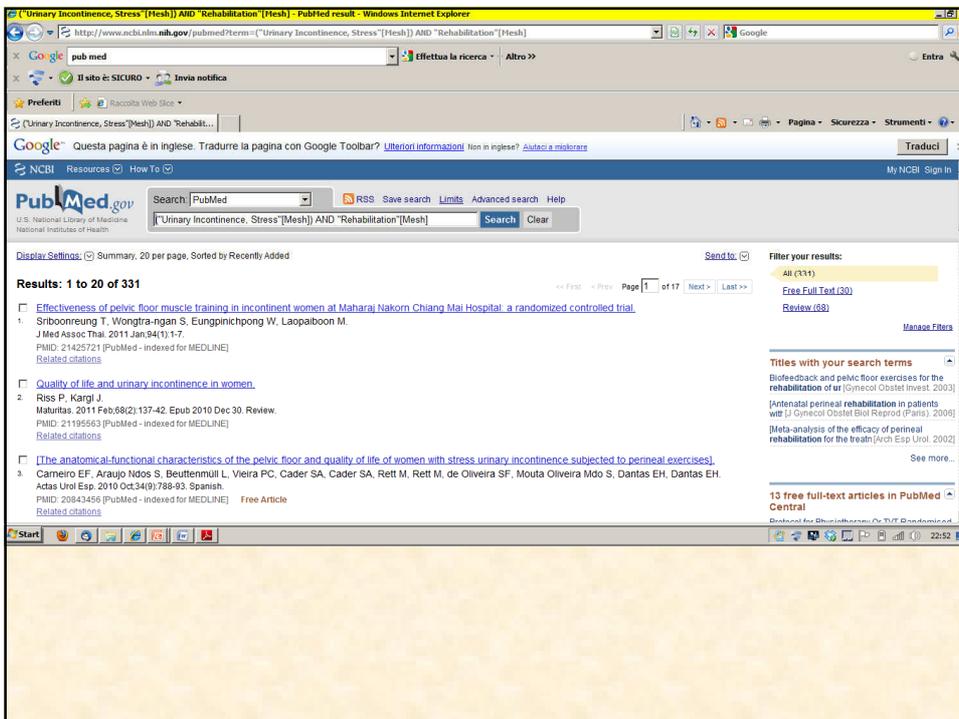
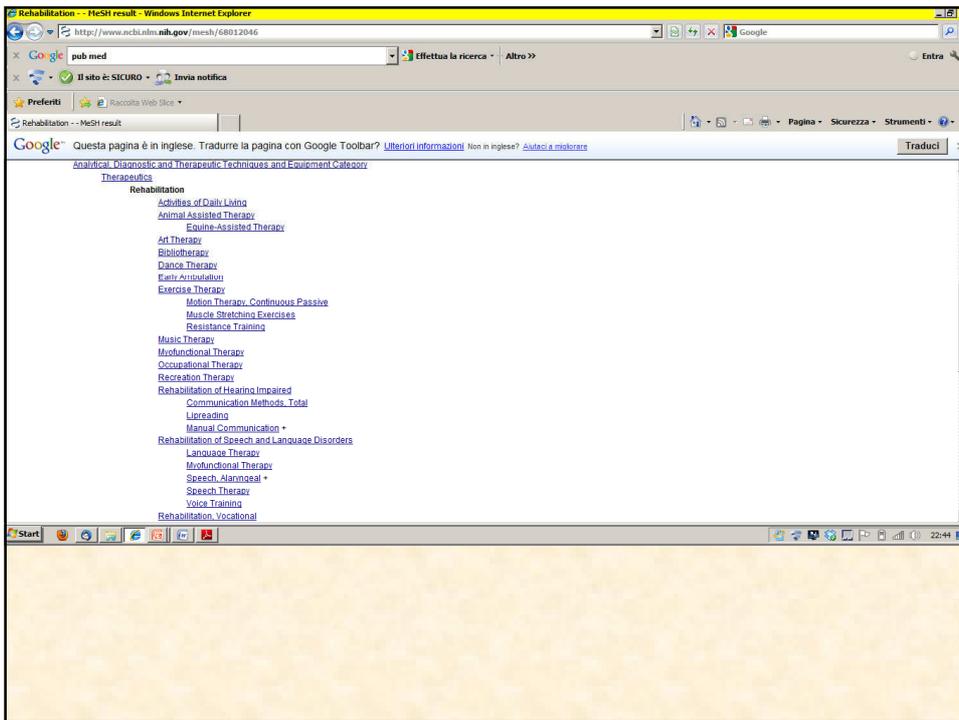
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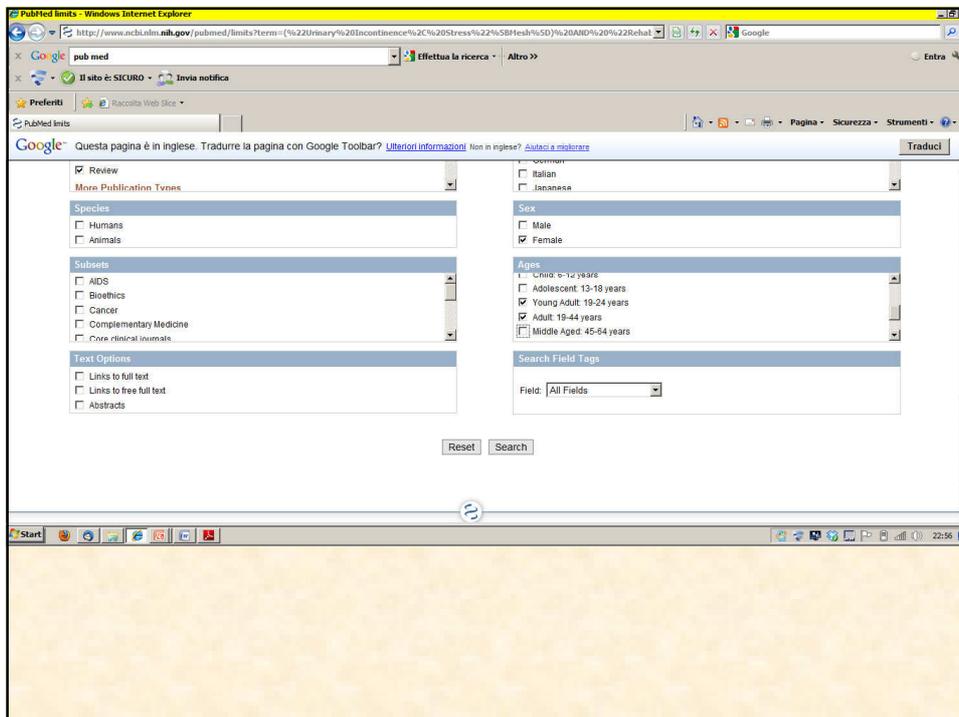
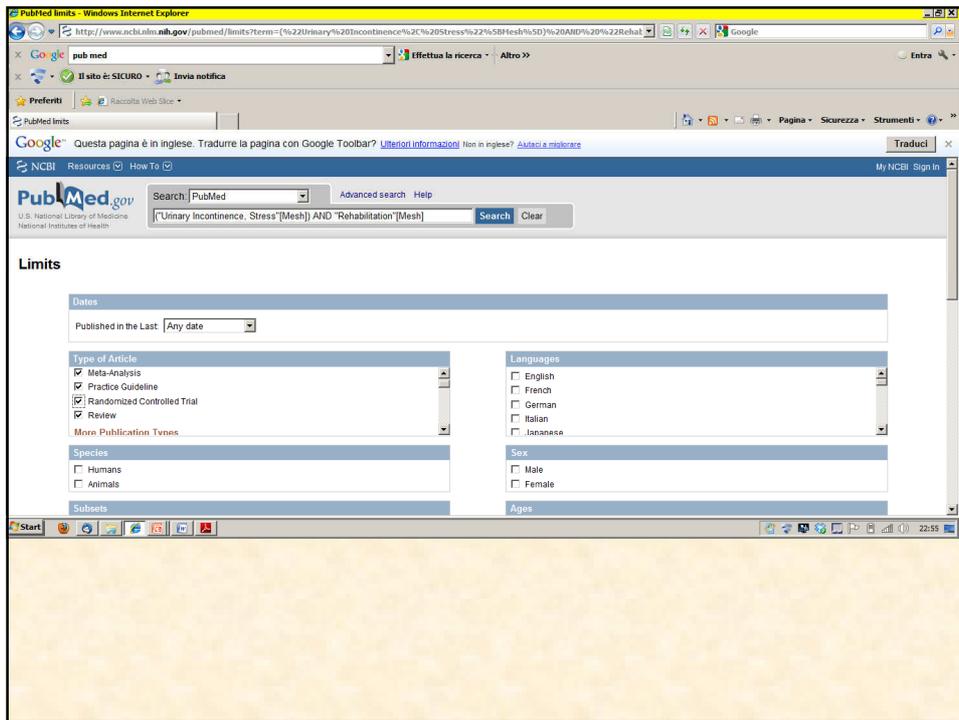
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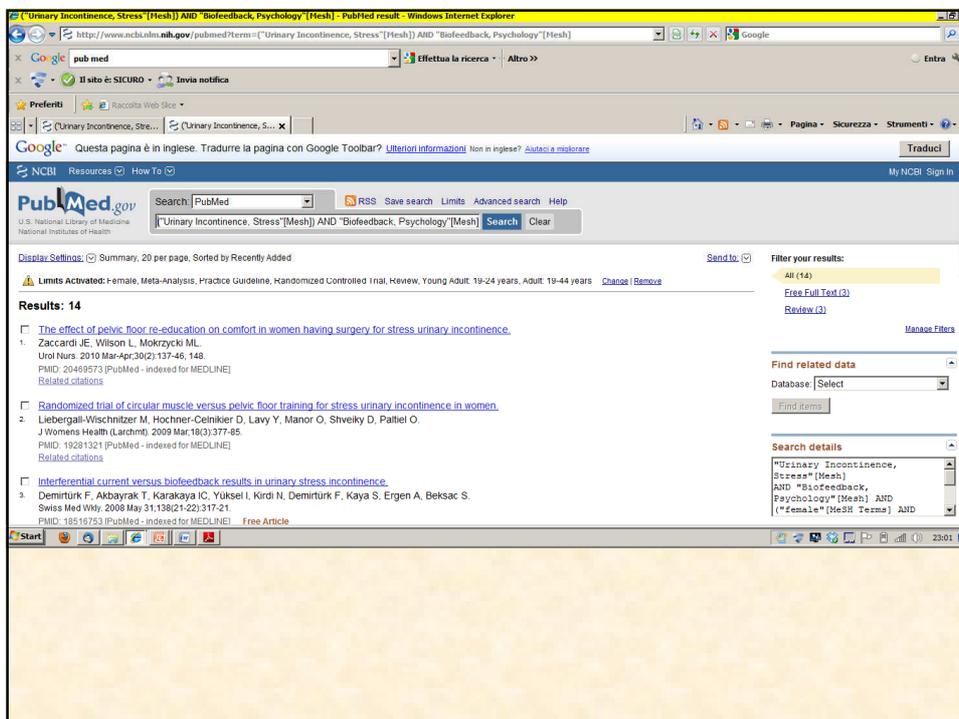
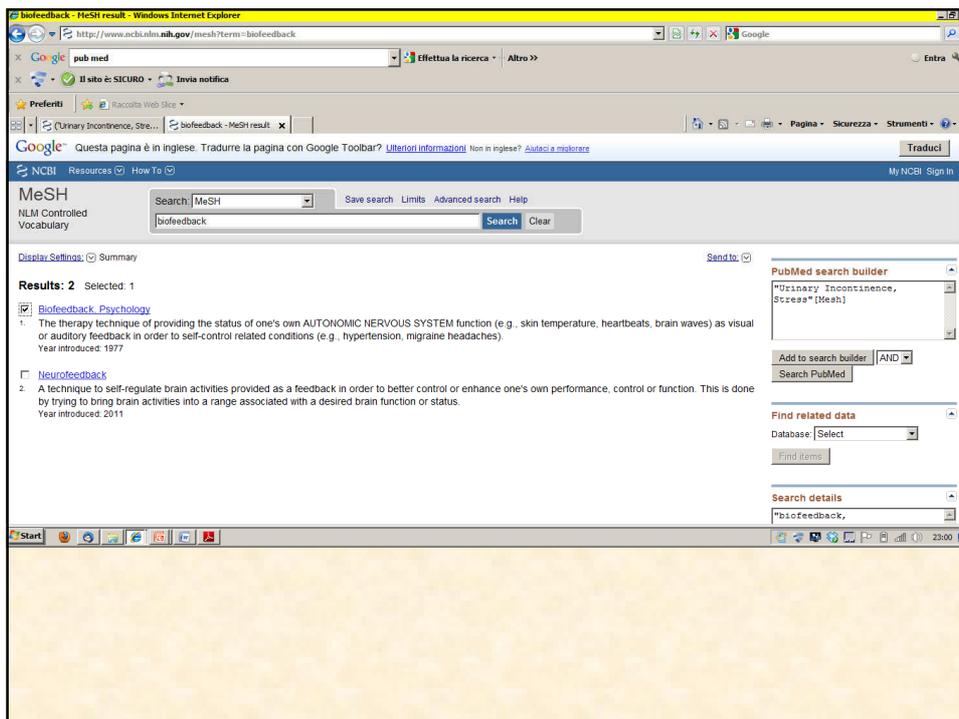
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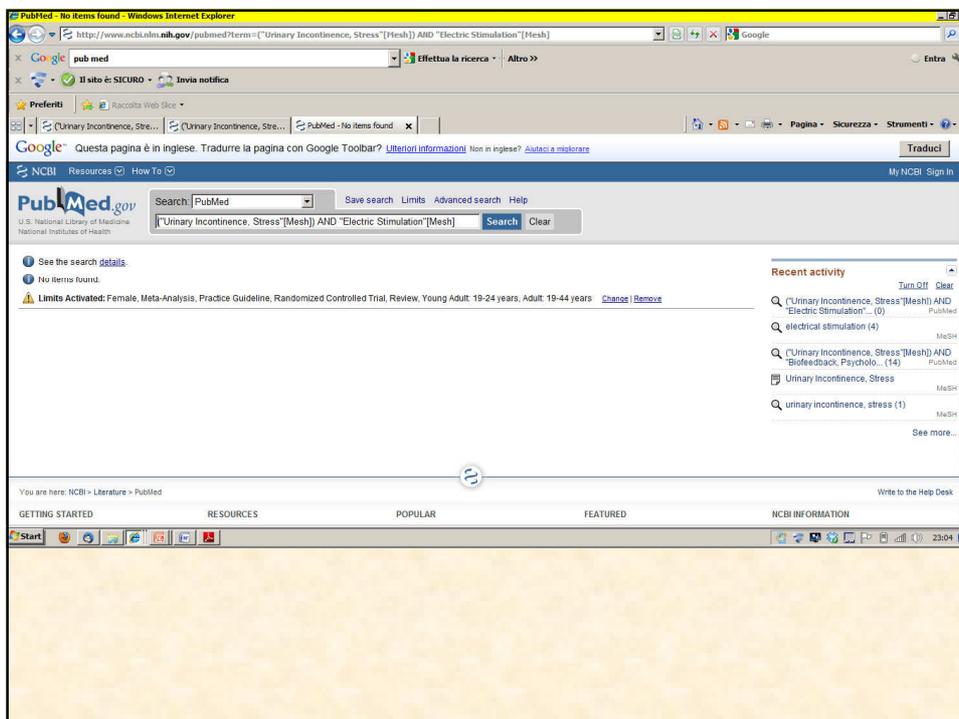
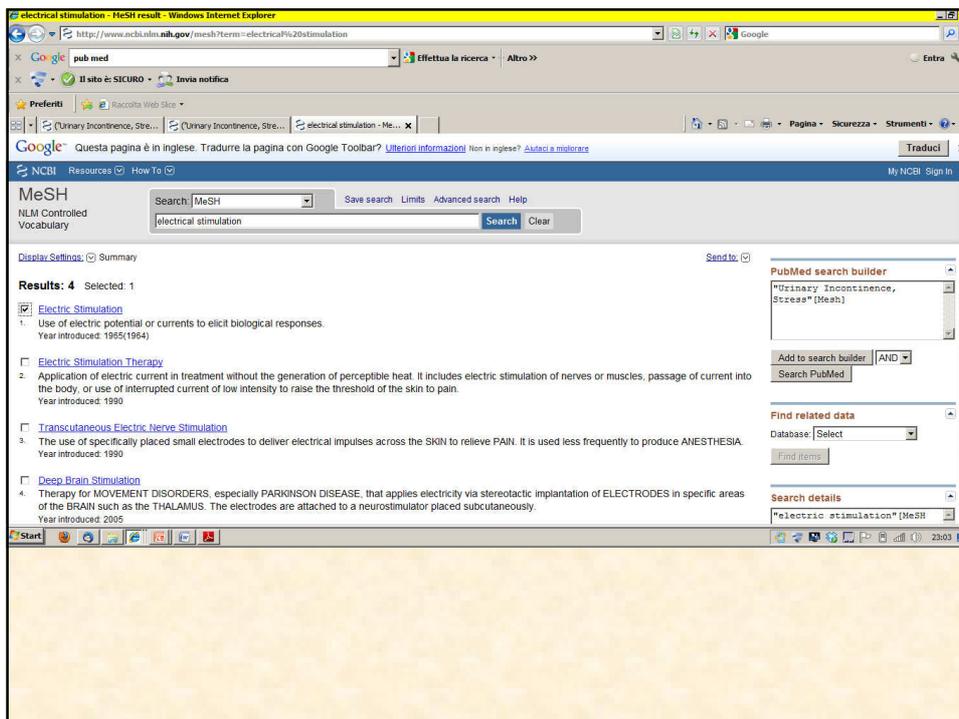
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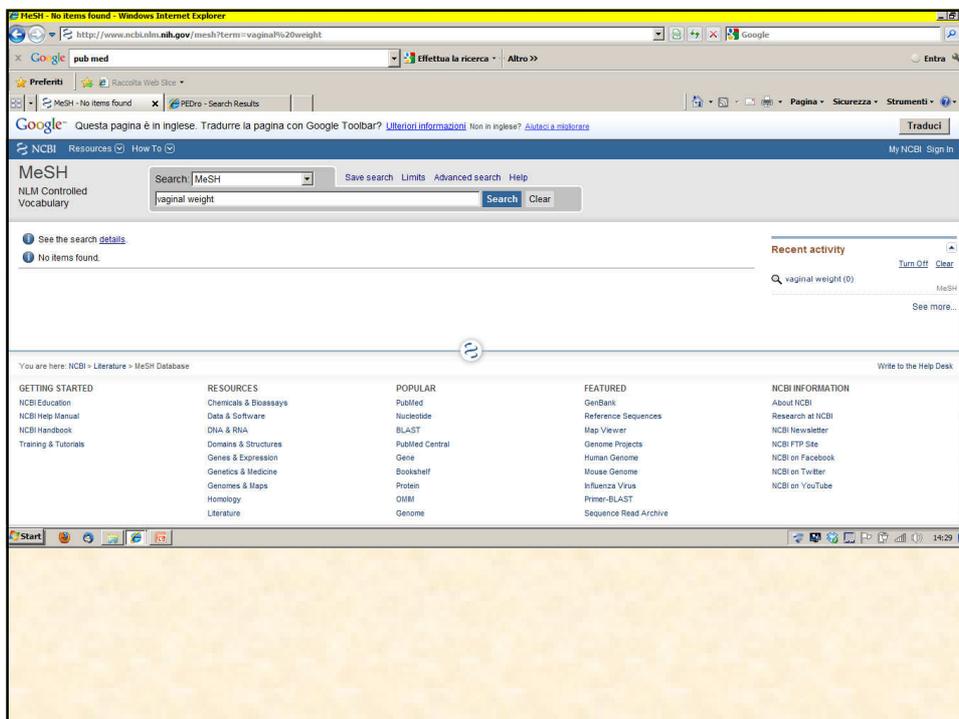
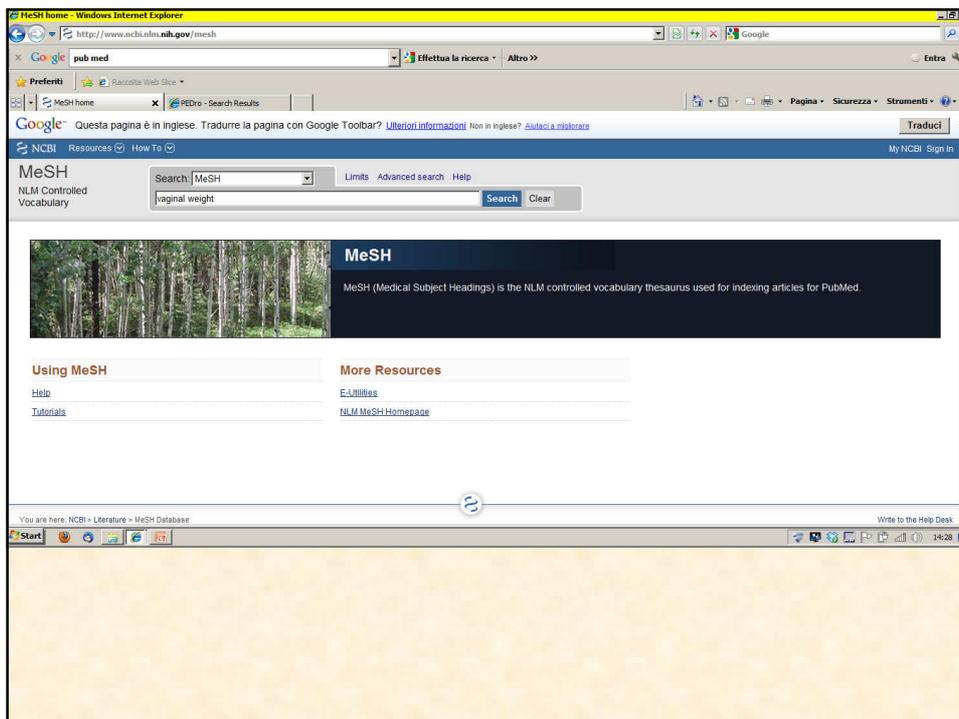


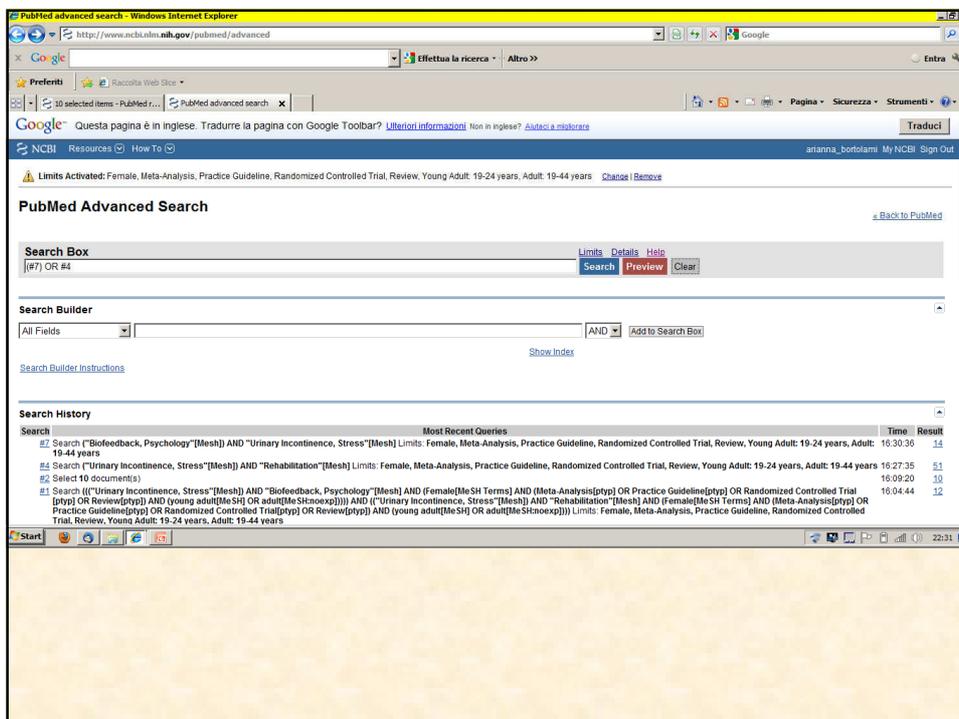
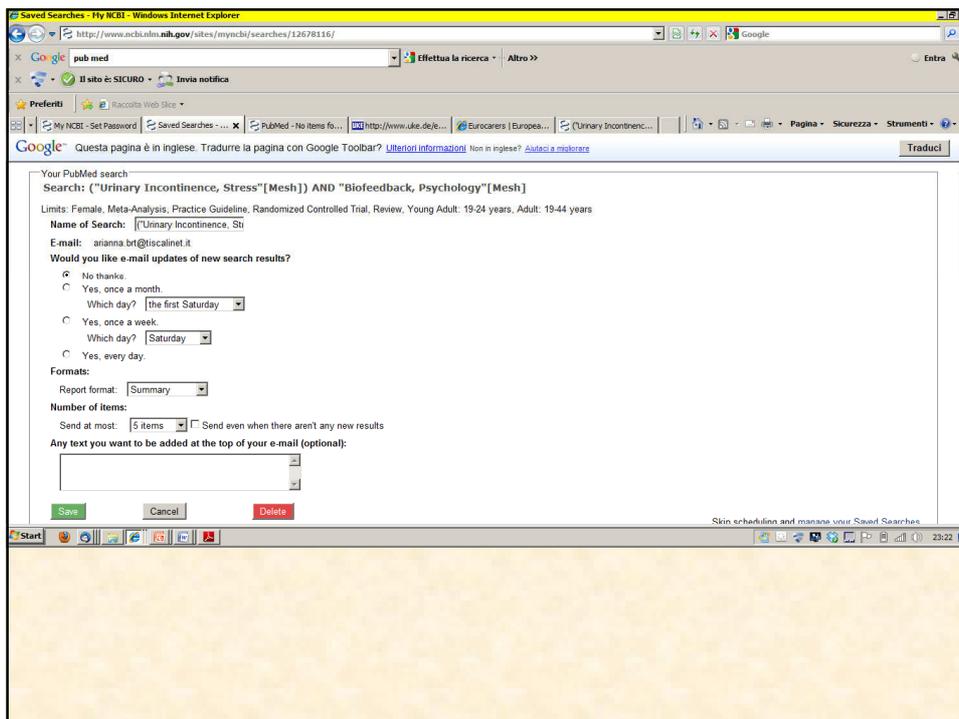












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1. [Efficacy of pelvic floor muscle training in incontinent women at Mahatma Jyoti Bai Hospital, a randomized controlled trial.](#)
Sriboonreung T, Wongtra-ngan S, Eungpinichpong W, Laopaiboon M.
J Med Assoc Thai. 2011 Jan;94(1):1-7.
PMID: 21425721 [PubMed - indexed for MEDLINE]
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2. [The anatomical-functional characteristics of the pelvic floor and quality of life of women with stress urinary incontinence subjected to perineal exercises.](#)
Carneiro EF, Araujo Ndos S, Beutenmull L, Vieira PC, Cader SA, Cader SA, Rett M, Rett M, de Oliveira SF, Mouta Oliveira Mdo S, Dantas EH, Dantas EH.
Actas Urol Esp. 2010 Oct;34(9):789-93. Spanish.
PMID: 20843456 [PubMed - indexed for MEDLINE] [Free Article](#)
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3. [Predictors of success for physiotherapy treatment in women with persistent postpartum stress urinary incontinence.](#)
Dumoulin C, Bourbonnais D, Morin M, Gravel D, Lemieux MC.
Arch Phys Med Rehabil. 2010 Jul;91(7):1059-63.
PMID: 20537314 [PubMed - indexed for MEDLINE]
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4. [The effect of pelvic floor re-education on comfort in women having surgery for stress urinary incontinence.](#)
Zaccardi JF, Wilson I, Mokrzycki M.

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5. [Can pelvic floor muscle training reverse pelvic organ prolapse and reduce prolapse symptoms? An assessor-blinded, randomized controlled trial.](#)
Braekken IH, Majida M, Engh ME, Bo K.
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[Related citations](#)
8. [Observation on therapeutic effect of dog-day acupuncture and moxibustion combined with pelvic floor muscle exercises for treatment of female stress urinary incontinence.](#)
Tang CL, Dai DC, Zhu WF, Jia YV, Mei LF, Zhao GF.
Zhongguo Zhen Jiu. 2009 Nov;29(11):879-83. Chinese.
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Labrie J, van der Graaf Y, Buskens E, Tiersma SE, van der Vaart HC.
BMC Womens Health. 2009 Sep 1;9:24.
PMID: 19723313 [PubMed - indexed for MEDLINE] [Free PMC Article](#)

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3. [Predictors of success for physiotherapy treatment in women with persistent postpartum stress urinary incontinence](#)
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9. [Women free vaginal tape versus pelvic floor muscle training in women with symptomatic moderate to severe stress urinary incontinence](#)
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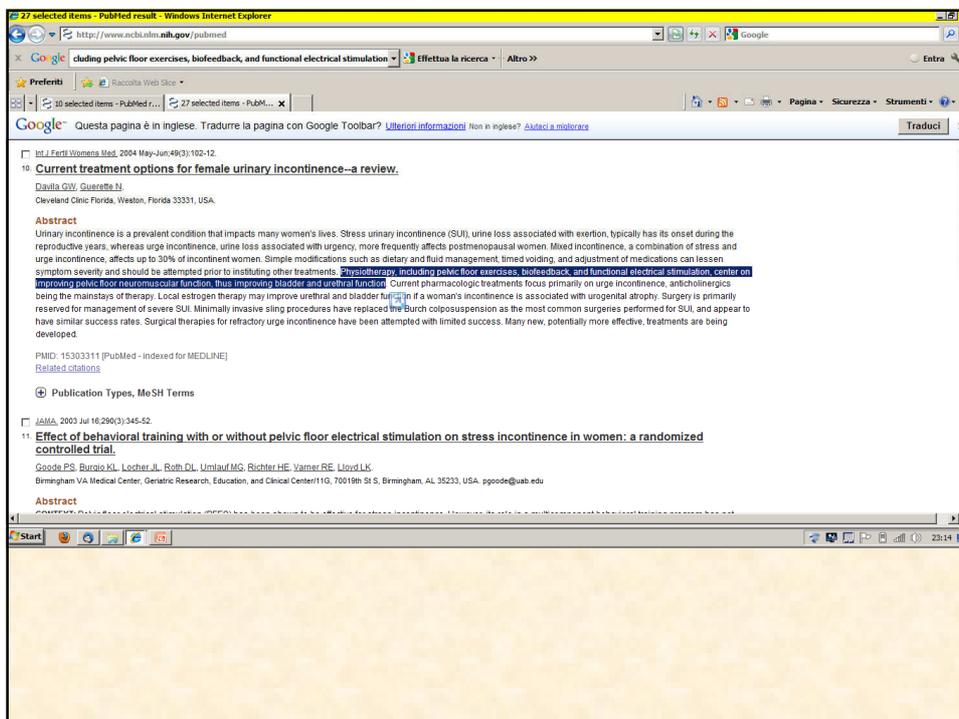
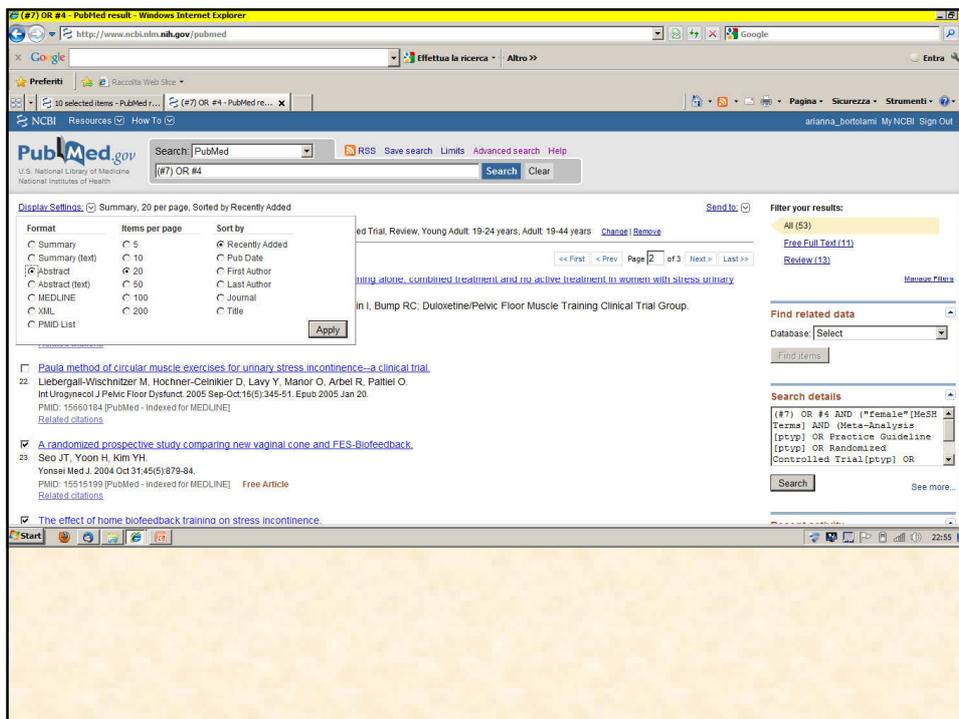
10. [Pelvic floor muscle training in female stress urinary incontinence: comparison between group training and individual treatment using PERFECT assessment scheme](#)
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Int Urogynecol J Pelvic Floor Dysfunct. 2009 Dec;20(12):1455-62. Epub 2009 Aug 19.
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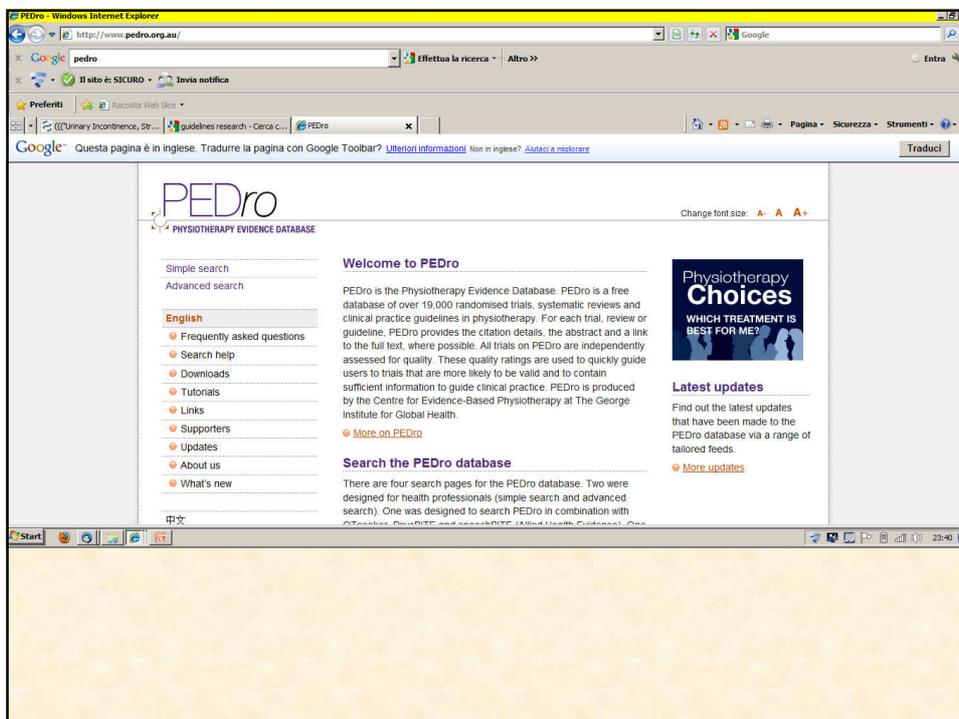
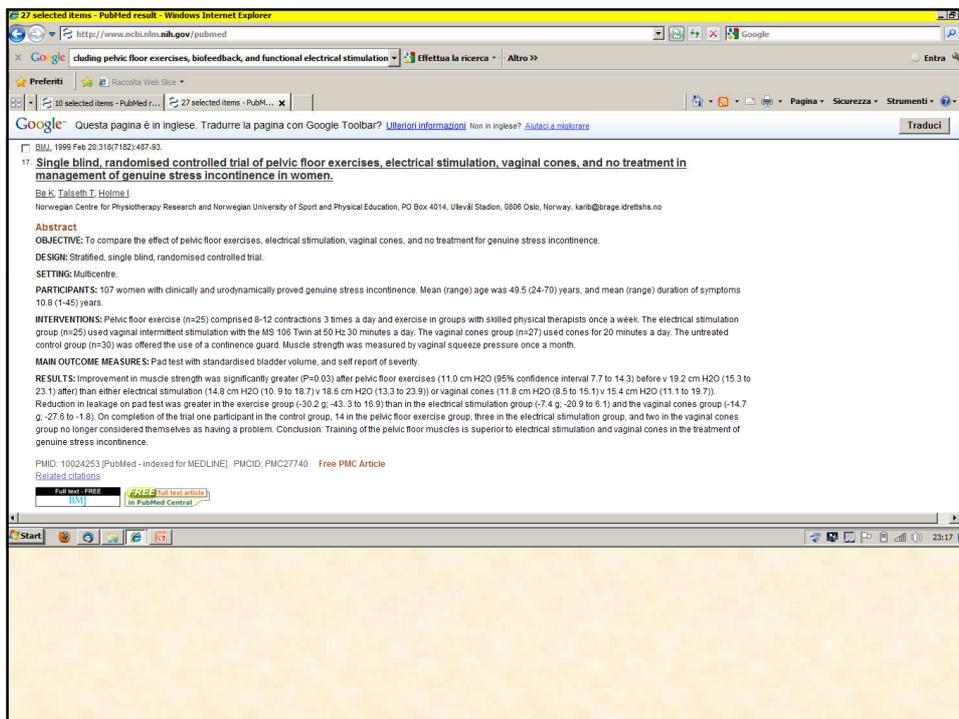
11. [Incontinence: pessaries, size, POPQ measures, and successful fitting](#)
Nager CW, Richter HE, Nygaard I, Paraiso MF, Wu JM, Kenton K, Atlap SD, Spino C, Pelvic Floor Disorders Network (PFDN).
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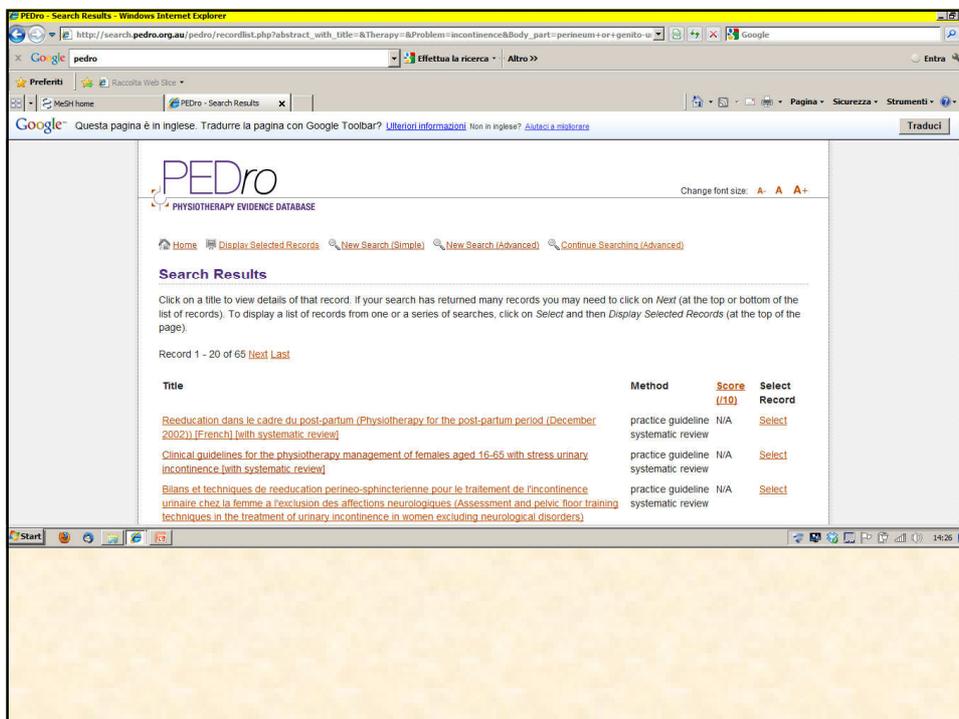
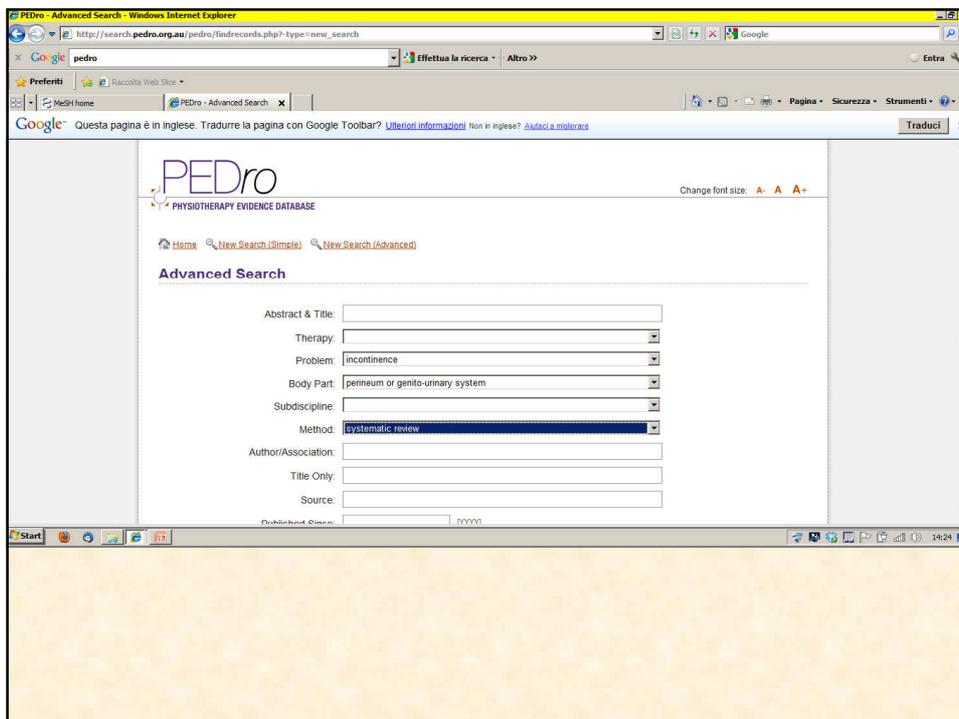
12. [Randomized trial of circular muscle versus pelvic floor training for stress urinary incontinence in women](#)
Liebergall-Wischmizer M, Hochner-Celinkier D, Lavy Y, Manor O, Shveiky D, Paltiel O.
J Womens Health (Larchmt). 2009 Mar;18(3):377-85.
PMID: 19281321 [PubMed - indexed for MEDLINE]

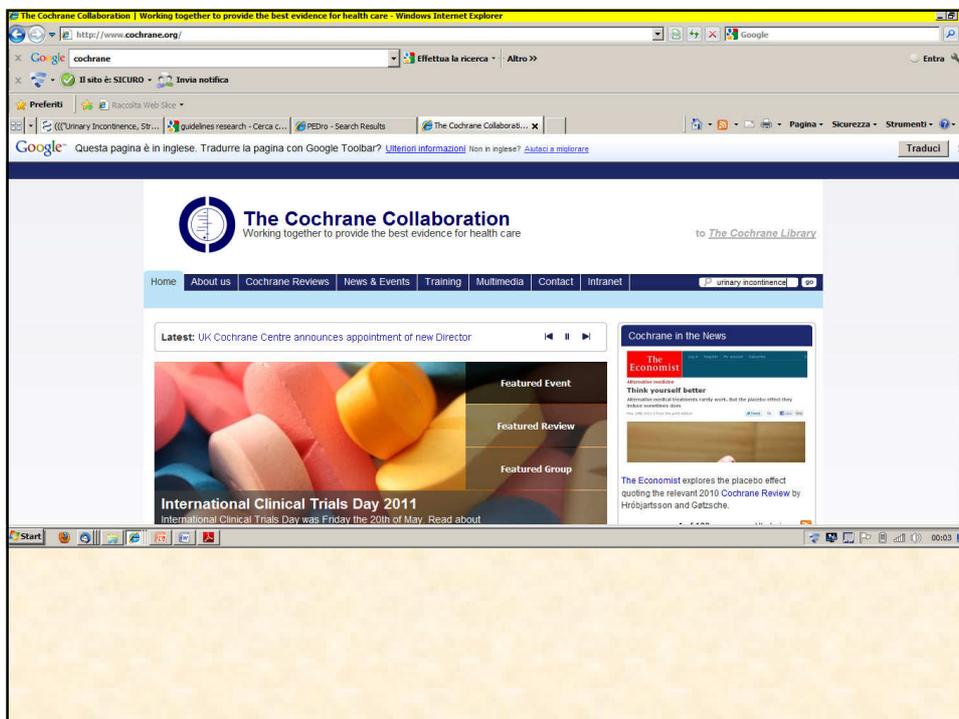
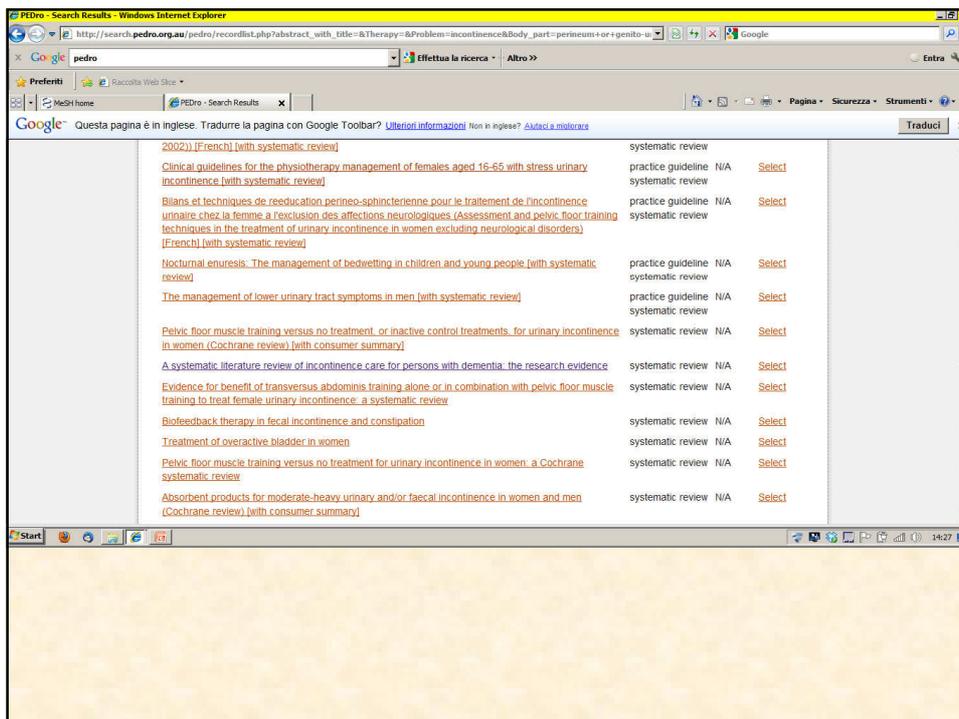
13. [Continence and quality-of-life outcomes 6 months following an intensive pelvic-floor muscle exercise program for female stress urinary incontinence: a randomized trial comparing low- and high-frequency maintenance exercise](#)
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Phys Ther. 2008 Dec;88(12):1545-53. Epub 2008 Sep 26.
PMID: 18820095 [PubMed - indexed for MEDLINE] Free PMC Article

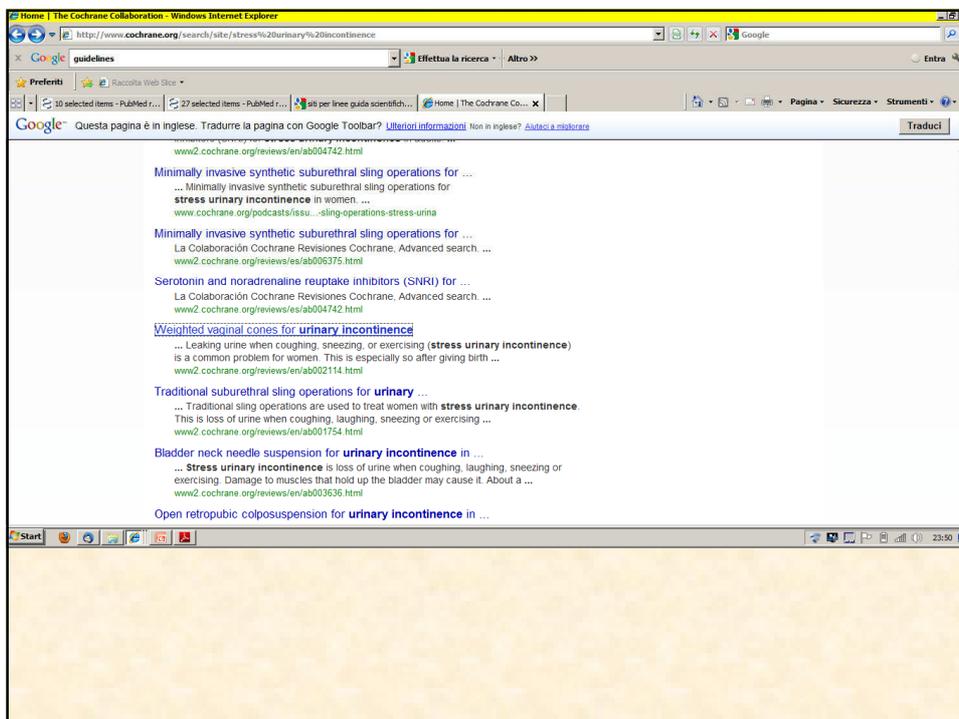
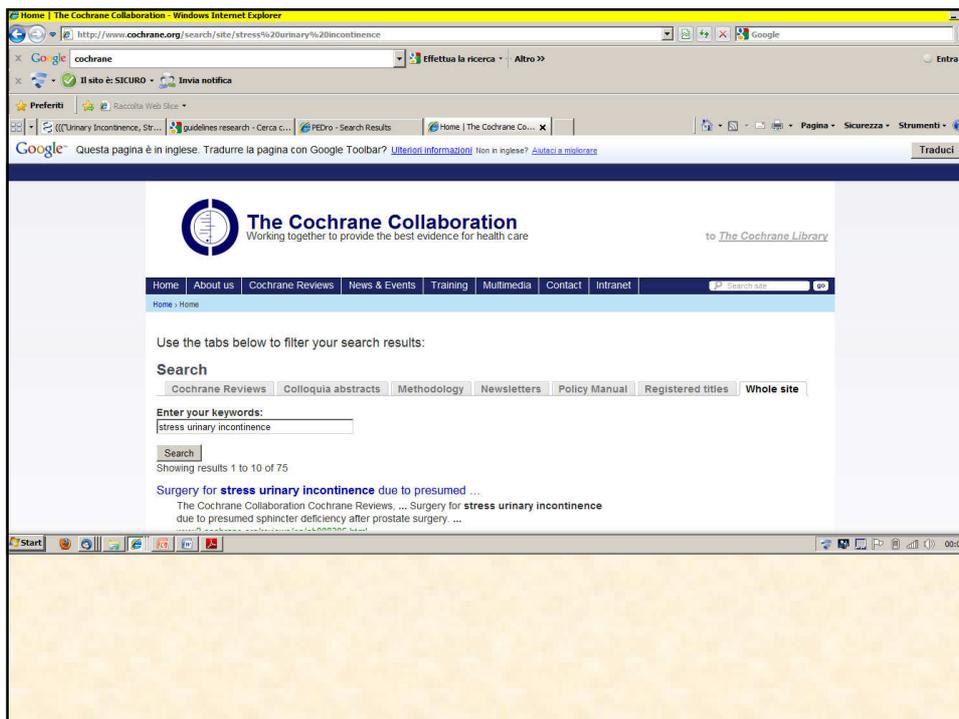
14. [The long-term effectiveness of antenatal pelvic floor muscle training: eight-year follow up of a randomised controlled trial](#)











Weighted vaginal cones for urinary incontinence - Windows Internet Explorer

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Weighted vaginal cones for urinary incontinence

Herbison GP, Dean N

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Plain Language Summary

Vaginal weights for training the pelvic floor muscles to treat urinary incontinence in women

Leaking urine when coughing, sneezing, or exercising (stress urinary incontinence) is a common problem for women. This is especially so after giving birth, when about one woman in three will leak urine. Training of the pelvic floor muscles is the most common form of treatment for this problem. One way that women can train these muscles is by inserting cone-shaped weights into the vagina, and then contracting the pelvic floor muscles to stop the weights from slipping out again.

Seventeen small studies, involving 1484 women, were found. The results of these studies consistently showed that the use of vaginal weights is better than having no treatment. When vaginal weights were compared to other treatments, such as pelvic floor muscle training without the weights, and electrical stimulation of the pelvic floor, no clear differences between the treatments were evident. This may have been because the numbers of participants in the trials were small, and larger numbers may be required for any differences in the effectiveness of treatments to become clear.

Some women find vaginal weights unpleasant or difficult to use, so this treatment may not be useful for all women.

Many women with stress urinary incontinence will not be cured by these treatments, and so it is important for studies to assess quality of life during and after treatment, but few of these studies did. Most of the studies were fairly short term, so it is difficult to say what happens to women with stress urinary incontinence in the longer term.

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Pelvic floor muscle training versus no treatment, or inactive control treatments, for urinary incontinence in women

Dumoulin C, Hay-Smith J

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Plain Language Summary

Pelvic floor muscle training versus no treatment for urinary incontinence in women.

Stress incontinence is the involuntary leakage of urine with a physical activity such as coughing or sneezing and can happen if the pelvic floor muscles are weak. Urge leakage occurs with a strong need to urinate, but the person cannot make it to the toilet in time and is caused by an involuntary contraction of the bladder muscle. A combination of stress and urge leakage is called mixed incontinence. The review of trials found that pelvic floor muscle training (muscle-clenching exercises) helps women with all types of incontinence although women with stress incontinence who exercise for three months or more benefit most.

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P.I.C.O.:

Paziente o popolazione: *pazienti di sesso femminile in età fertile affette da incontinenza urinaria da sforzo*

Intervento: esercizio terapeutico (pelvic floor muscle training) biofeedback (bfb), stimolazione elettrica funzionale (sef), coni vaginali (vaginal weight)

Comparazione: all

Outcome: *qualità di vita, misurata con indicatore*

L'esercizio terapeutico (pelvic floor muscle training) risulta essere la tecnica/strumento più efficace nella fisioterapia del pavimento pelvico per l'incontinenza urinaria da sforzo nelle pazienti di sesso femminile in età fertile.

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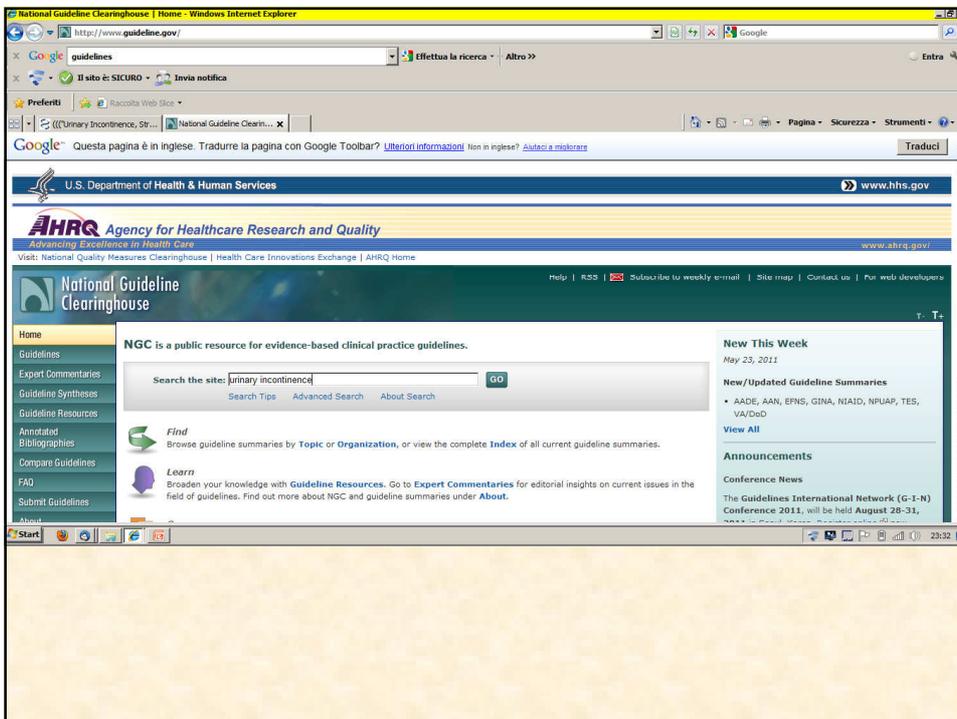
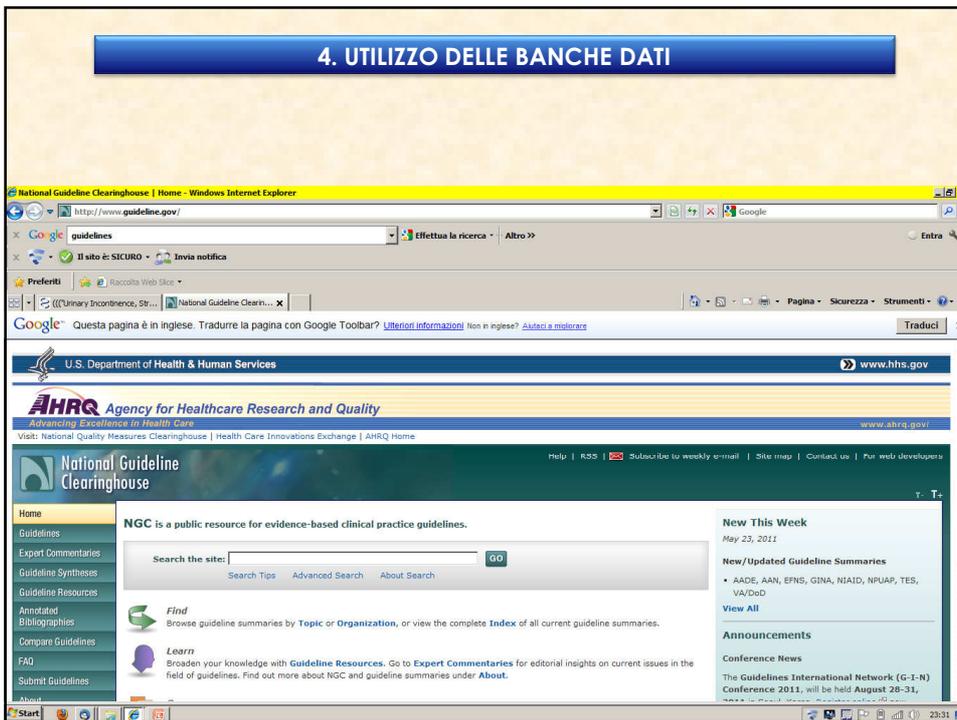
Paziente o popolazione: *pazienti di sesso femminile in età fertile affette da incontinenza urinaria da sforzo*

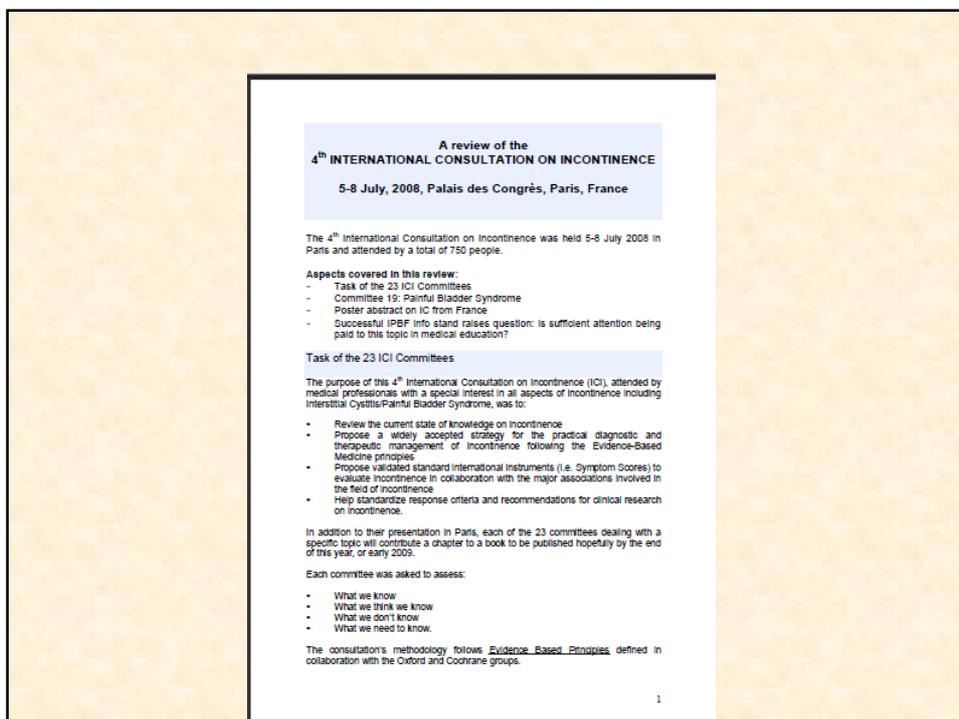
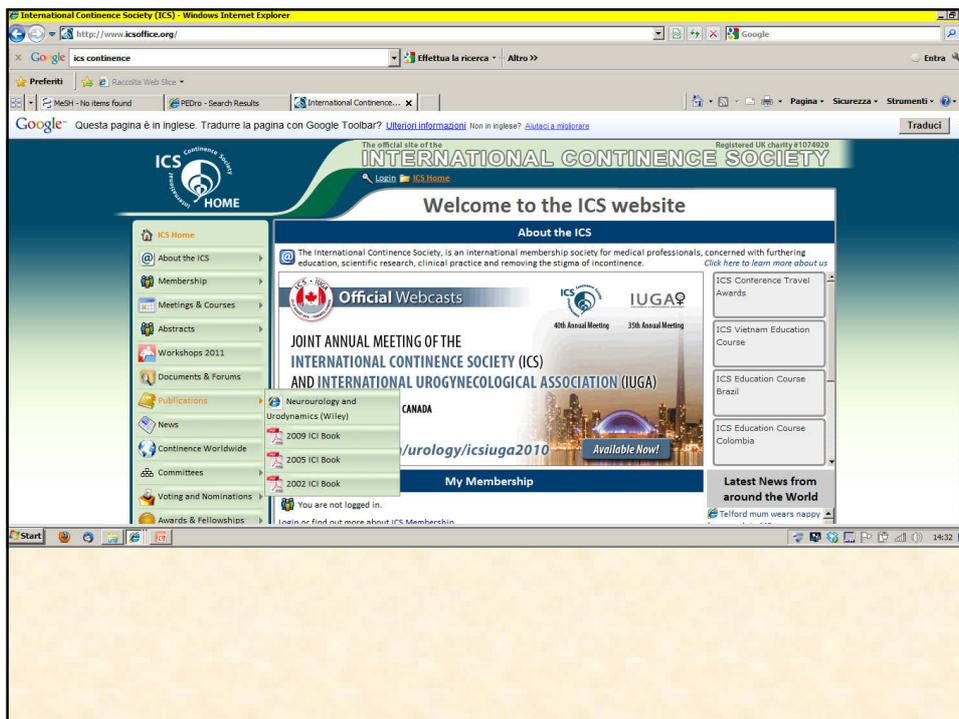
Intervento: **primo intervento**

Comparazione: **all**

Outcome: **qualità di vita**

4. UTILIZZO DELLE BANCHE DATI





Neurourology and Urodynamics 29:213–240 (2010)

— REVIEW ARTICLE —

**Fourth International Consultation on Incontinence
Recommendations of the International Scientific Committee:
Evaluation and Treatment of Urinary Incontinence,
Pelvic Organ Prolapse, and Fecal Incontinence**

P. Abrams, K.E. Andersson, L. Birder, L. Brubaker, L. Cardozo, C. Chapple, A. Cottenden, W. Davila, D. de Ridder, R. Dmochowski, M. Drake, C. DuBeau, C. Fry, P. Hanno, J. Hay Smith, S. Herschorn, G. Hosker, C. Kelleher, H. Koelbl, S. Khoury, R. Madoff, I. Milsom, K. Moore, D. Newman, V. Nitti, C. Norton, I. Nygaard, C. Payne, A. Smith, D. Staskin, S. Tekgul, J. Thuroff, A. Tubaro, D. Vodusek, A. Wein, and J.J. Wyndaele and the Members of the Committees

3. QUESTO CLINICO

P.I.C.O.:

Paziente o popolazione: *pazienti di sesso femminile in età fertile affette da incontinenza urinaria da sforzo*

Intervento: *primo intervento*

Comparazione: *all*

Outcome: *qualità di vita*

L'esercizio terapeutico (pelvic floor muscle training) risulta essere, insieme al *lifestyle intervention* e al *bladder training* il primo intervento consigliato in caso di incontinenza urinaria da sforzo nelle pazienti di sesso femminile.