הזנת החולה הסובל מדמנציה סופנית

האם יש הוכחה לנזק מ - PEG ?

רפואה או אתיקה

ד"ר ראובן פרידמן

המחלקה הגריאטרית

מרכז רפואי שערי צדק

American Geriatrics Society Identifies Five Things That Healthcare Providers and Patients Should Question

AGS Choosing Wisely Workgroup

"Choosing Wisely is designed to engage individuals, healthcare professionals, and family caregivers in discussions about the safety and appropriateness of medical tests, medications, and procedures.

These discussions should examine whether the tests and procedures are evidence based, whether any risks they pose might overshadow their potential benefits, whether they are redundant, and whether they are truly necessary".

Table 1. AGS Choosing Wisely—Five Things Physicians and Patients Should Question

Recommendation	Rationale	Citations
Don't recommend percutaneous feeding tubes in patients with advanced dementia; instead offer oral assisted feeding.	Careful hand feeding for patients with severe dementia is at least as good as tube feeding for the outcomes of death, aspiration pneumonia, functional status, and patient comfort. Food is the preferred nutrient. Tube feeding is associated with agitation, increased use of physical and chemical restraints, and worsening pressure ulcers.	Finucane TE, Christmas C, Travis K. Tube feeding in patients with advanced dementia: A review of the evidence. JAMA 1999;282:1365–1370. Gabriel SE, Normand ST. Getting the methods right—the foundation of patient-centered outcomes research. N Engl J Med 2012;367: 787–790. Teno JM, Feng Z, Mitchell SL et al. Do financial incentives of introducing case mix reimbursement increase feeding tube use in nursing home residents? J Am Geriatr Soc 2008;56:887–890. Teno JM, Mitchell SL, Kuo SK et al. Decision-making and outcomes of feeding tube insertion: A five-state study. J Am Geriatr Soc 2011;59: 881–886. Palecek EJ, Teno JM, Casarett DJ et al. Comfort feeding only: A proposal to bring clarity to decision-making regarding difficulty with eating for persons with advanced dementia. J Am Geriatr Soc 2010;58:580–584. Hanson LC, Carey TS, Caprio AJ et al. Improving decision-making for feeding options in advanced dementia: A randomized, controlled trial. J Am Geriatr Soc 2011;59:2009–2016.

במאמר סקירה נרחב Finucane וחב' מצטטים עבודות רבות שלא הצליחו להראות השפעה חיובית של הזנה אנטרלית בחולים עם מחלות שונות.

המחברים מציינים כי בחולי שיטיון מתקדם לא ניתן להסיק לא לחיוב אך גם לא לשלילה את השפעות ההזנה על נזקים של מצבי תת תזונה .

Finucane TE, Christmas C, Travis K. Tube feeding in patients with advanced dementia: a review of the evidence. JAMA. 1999 Oct 13;282(14):1365-70. Review.

From: **Tube Feeding in Patients With Advanced Dementia: A Review of the Evidence**

JAMA. 1999;282(14):1365-1370. doi:10.1001/jama.282.14.1365

Table 1. Mortality After Feeding Tube Placement: Observational Studies*

Study, y	Intervention	Type of Patient, No.	Outcome
Heimbach,[28] 1970	Surgical feeding tube	Neurogenic, 100	63% Mortality by 1 mo
Matino,[29] 1981	Jejunostomy tube	Neurogenic, 54	33% Mortality by 1 mo, 50% mortality among survivors by 6 mo
Golden et al,[30] 1997	PEG tube	Mixed population, 102	24% Mortality by 6 mo, 55% mortality by 2 y
Kaw and Sekas,[31] 1994	PEG tube	Mixed population, 46	20% Mortality by 1 mo, 59% mortality by 18 mo
Hull et al,[19] 1993	PEG tube	Mixed population, 49	8% Mortality by 1 mo, mean survival <6 mo
Kohli and Block,[20] 1995	PEG tube (review of 4 studies)	Mixed population, 612	16%-30% Mortality by 1 mo
Nevins,[21] 1989	PEG tube or gastrostomy tube	Neurogenic, 22	41% Mortality by 3 wks
Fay et al,[32] 1991	PEG vs nasoenteric tube	Mixed population, 109	50% Mortality by 4 mo for both populations
Hassett et al,[22] 1988	Gastrostomy tube	Neurogenic, 87	20% Mortality by 1 mo, 40% mortality by 1 y
Grant et al,[23] 1998	PEG tube or gastrostomy tube	Mixed population, 81 105	24% Mortality by 1 mo, 63% mortality by 1 y, 81.3% mortality by 3 y
Finocchiaro et al,[24] 1997	PEG tube	Mixed population, 136	9.5% Mortality by 1 mo, 58% mortality by 1 y, 65% mortality by 2 y
Loser et al,[33] 1998	PEG tube	Mixed population, 210	66% Mortality by 1 y
Fisman et al,[34] 1999	PEG tube	Mixed population, 175	18% Mortality by 30 d, 61% mortality by 1 y
Light et al,[35] 1995	PEG tube	Mixed population, 416	9% Mortality by 1 mo
Bergstrom et al,[36] 1995	Gastrostomy tube	Mixed population, 77	21% Mortality by 1 mo, 64% mortality by 1 y

*Neurogenic indicates dementia, cerebrovascular accident, trauma, anoxic brain injury, Parkinson disease, Guillain-Barré syndrome, or motor neuron disease; PEG, percutaneous endoscopic gastrostomy; and mixed population, patients with neurogenic mechanical disorders and cancer.

83300 total

Gastrostomy Placement and Mortality Among Hospitalized Medicare Beneficiaries

Mark D. Grant, MD, MPH; Mark A. Rudberg, MD, MPH; Jacob A. Brody, MD

JAMA. 1998 Jun 24;279(24):1973-6.

Table 2.—Frequent Discharge Diagnoses for Hospitalized Medicare Beneficiaries Discharged in 1991 Following Gastrostomy Placement

	Women, No. (%)	Men, No. (%)	Total, No. (%)
Primary diagnoses			
Cerebrovascular disease	8898 (18.1)	5512 (17.2)	**14 410** (17.8)
Neoplasms	3631 (7.4)	3975 (12.4)	**7606** (9.4)
Fluid and electrolyte disorders	4935 (10.1)	2505 (7.8)	**7440** (9.2)
Aspiration pneumonia	3346 (6.8)	3361 (10.5)	**6707** (8.3)
Pneumonia or influenza	2926 (6.0)	2415 (7.5)	**5341** (6.6)
Malnutrition	2492 (5.1)	1083 (3.4)	**3575** (4.4)
Secondary diagnoses*			
Fluid and electrolyte disorders	19 083 (38.9)	10 775 (33.6)	**29 858** (36.8)
Urinary tract infection	15 079 (30.7)	6208 (19.4)	**21 287** (26.2)
Malnutrition	11 647 (23.7)	6942 (21.7)	**18 589** (22.9)
Congestive heart failure	7097 (14.5)	3835 (12.0)	**10 932** (13.5)
Neoplasms	4830 (9.8)	5295 (16.5)	**10 125** (12.5)
Cerebrovascular disease	5923 (12.1)	3915 (12.2)	**9838** (12.1)
Dementia	6007 (12.2)	2661 (8.3)	**8668** (10.7)
Swallowing disorders	5112 (10.4)	3387 (10.6)	**8499** (10.5)
Diabetes mellitus	5426 (11.1)	3004 (9.4)	**8430** (10.4)
Obstructive pulmonary disease	3431 (7.0)	4933 (15.4)	**8364** (10.3)
Decubitus ulcer	4963 (10.1)	2578 (8.0)	**7541** (9.3)

*Secondary diagnoses recorded for more than 10% of total discharges and decubitus ulcer diagnosis added because of clinical relevance.

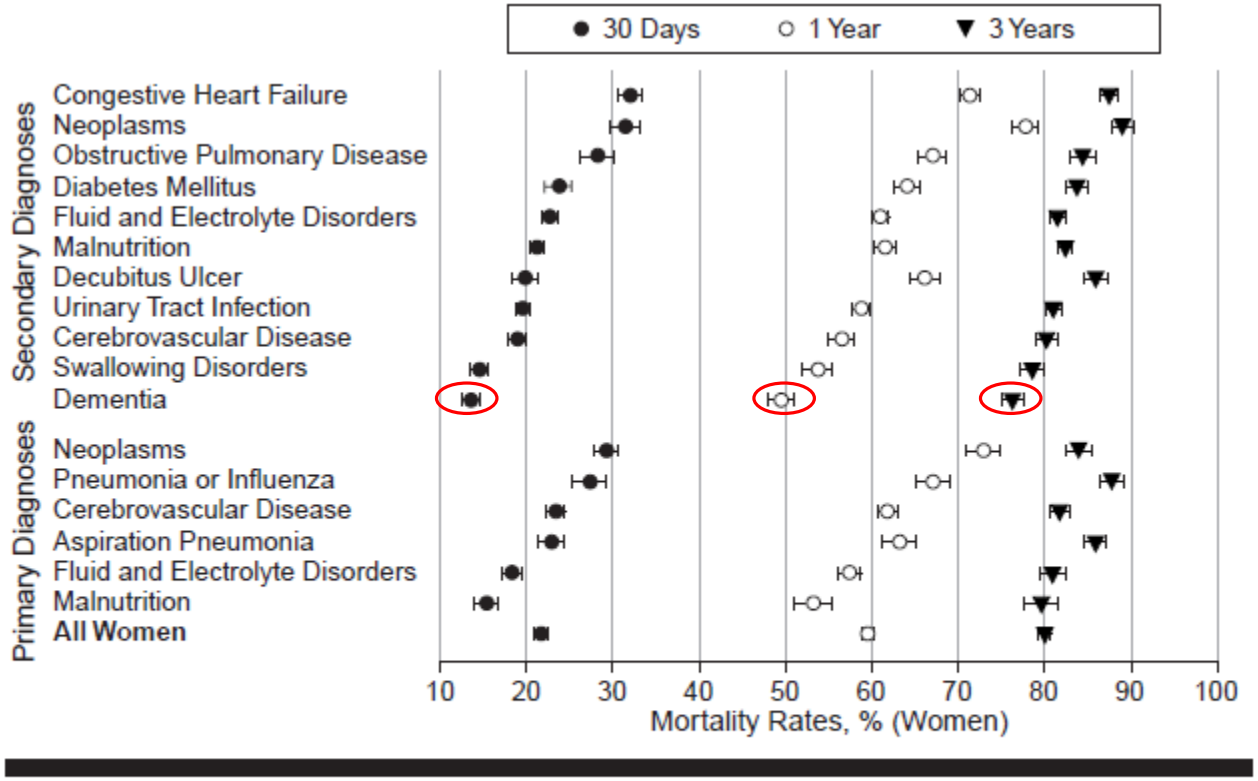

Figure 2.—Age-adjusted and race-adjusted 30-day, 1-year, and 3-year mortality rates with 95% confidence intervals according to primary and secondary diagnoses in white and black women. Mortality rates were calculated from fitted Cox models for the mean age (81.9 years) and a sample that was 82.4% white.

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Percutaneous Endoscopic Gastrostomy and Outcome in Dementia

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Department of Medicine and Divisions of Geriatrics and Gastroenterology and Nutrition, Our Lady of Mercy Medical Center, Bronx, New York

Table 2. Short Term and Long Term Mortality After PEG Placement

	Year	Number of Patients	In-Hospital and 30-Day Mortality (%)	1-yr Mortality (%)
Verhoef and Van Rosendaal (34)*	2001	71	27	39
Callahan *et al.* (13, 15)	2000	150	22	50
Sanders *et al.* (26)	2000	361	28	63
Fisman *et al.* (32)*	1999	175	18.3	61.1
Nair *et al.* (27)	1999	56		44 (6 mo)
Grant *et al.* (14)	1998	81,105	23.9	63
Loser *et al.* (58)*	1998	210	27	66
Rabeneck *et al.* (25)	1997	7,369	23.5	59
Finocchiaro *et al.* (59)	1997	136	9.5	58
Light *et al.* (60)*	1995	416	23.3	
Kaw and Sekas (16)	1994	46	20	50
Stuart *et al.* (21)	1993	48	31	
Wolfsen *et al.* (61)	1990	191	21	60 (6 mo)
Ciocon *et al.* (36)	1988	70	11	41

* Includes younger patients also.

Comorbid illnesses often dictate the outcome after PEG placement. At 30 days, it was observed that a diagnosis of pneumonia, cardiac failure, influenza, or neoplasm carried a higher mortality than malnutrition or fluid/electrolyte disorder in demented patients.

A Prospective Comparison of the Use of Nasogastric and Percutaneous Endoscopic Gastrostomy Tubes for Long-term Enteral Feeding in Older People

Dwolatzky, T. Berezovski, S. Friedmann, R. Paz, J. Clarfield, A.M. Stessman, J. Hamburger, R. Jaul, E. Friedlander, Y. Rosin, A. Sonnenblick M.

Clin Nutr. 2001. Dec;20(6):535-40

השוואה בין זונדה ל PEG אלקטיבי

בחולים עם PEG לעומת חולים עם זונדה

- הישרדות טובה יותר (HR=0.41; 95% CI 0.22-0.76; P=0.01)
- פחות אספירציות (HR=0.48; 95% CI 0.26-0.89)
- פחות שליפות עצמוניות בחולים עם PEG (HR=0.17; 95% CI 0.05-0.58)

מסקנה:

בהזנה אנטרלית לטווח ארוך בקבוצת חולים ללא מחלה חריפה שימוש ב PEG הראה תוחלת חיים טובה יותר סבילות טובה יותר לחולים ונראה כי שכיחות האספירציות היתה קטנה יותר לעומת חולים שהוזנו דרך זונדה

Journal of Gerontology: MEDICAL SCIENCES
1998, Vol. 53A, No. 3, M207–M213

Does Artificial Enteral Nutrition Prolong the Survival of Institutionalized Elders With Chewing and Swallowing Problems?

Susan L. Mitchell, Dan K. Kiely, and Lewis A. Lipsitz

The Hebrew Rehabilitation Center for Aged Research and Training Institute, the Department of Medicine of Beth Israel Deaconess Medical Center, and Division on Aging, Harvard Medical School, Boston, Massachusetts.

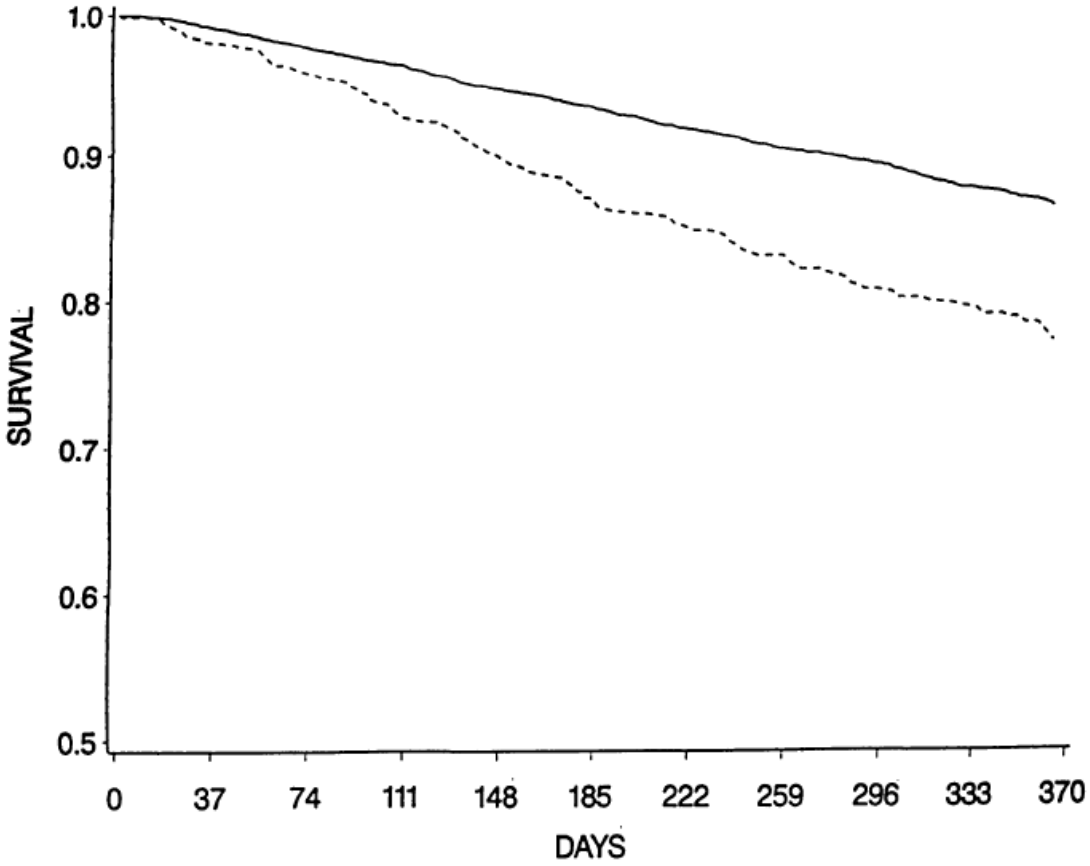

Figure 1. One-year survival comparison of residents with chewing and swallowing problems with (dotted line) and without (solid line) feeding tubes. By the end of the follow-up period, 77% of subjects were still alive; accordingly, the y axis is scaled to originate at 0.5.

Adverse effects form tube feeding

The most common adverse effect associated with all types of tube feeding is aspiration pneumonia (0%-66.6%).

For PEG tubes, common adverse effects are

tube occlusion (2%-34.7%),

leaking (13%-20%),

local infection (4.3%-16%).

Approximately 2/3 of nasogastric tubes require replacement.

Table 2. Burdens and Complications Associated With Tube Feeding

Adverse Effect Category	Type of Tube		
	Nasogastric	Gastrostomy and/or Jejunostomy	Both
Local/mechanical	Erosion/necrosis, bleeding of nose, pharynx, and/or esophagus[52,53,55]; postcricoid perichondritis[54]; tube misplacement into lung or brain[43,56]; high extubation rate; otitis media; sinusitis	Wound dehiscence; bleeding at insertion site; closure or stenosis of stoma; skin excoriation; hematoma; erosion of bumper into abdominal wall	Knotting of tube; tube malfunction[64]; tube migration; discomfort from tube; tube placement failure
Pleuropulmonary	Tracheoesophageal or bronchopleural fistula[55]; hemothorax, hydrothorax, pneumothorax[53,55,57]; tracheobronchial perforation; pneumonitis, lung abscess; pneumomediastinitis; airway obstruction; infusion into lung	Erosion of tube into pleural cavity	Aspiration of feeding
Abdominal	Perforation of esophagus or duodenum; esophageal stricture; esophageal bezoar[58]; reflux esophagitis	Gastric perforation[60]; gastric prolapse; gastrocolic fistula[59]; pneumoperitoneum; pneumatosis intestinalis[61]; prolonged ileus; evisceration[62]; acute gastric dilatation[65]; intussusception[66]; gastric wall defects[66]; laceration of esophagus[54]; peritonitis[54,60,64,67,68]; cellulitis[59,62]; necrotizing fasciitis; abdominal or subphrenic abscess[67]	Diarrhea; gastrointestinal bleeding[62,67]; bowel obstruction[64]; nausea[62]; vomiting; promotion of gastroesophageal reflux[70]
Other	Agitation[53,68]; requirement for frequent repositioning; increased secretions or frequent suctioning	Arrhythmia[26,62]; laryngospasm; shock; mediastinitis[62]	Fluid overload; increased skin moisture; death; use of restraints[63,68,69]; weight loss[53]; metabolic disturbance[53]; loss of gustatory pleasure; anorexia; loss of dignity; loss of social aspects of feeding; altered cosmesis[43,59]

Tube Feeding in Patients With Advanced Dementia: A Review of the Evidence. JAMA. 1999;282(14):1365-1370.

Conclusions

The authors identified no direct data to support tube feeding of demented patients with eating difficulties for any of the commonly cited indications.

Tube feeding is a risk factor for aspiration pneumonia; it has never been shown to be an effective treatment, and neither regurgitated gastric contents nor contaminated oral secretions can be kept out of the airways with a feeding tube.

Survival has not been shown to be prolonged by tube feeding.

Periprocedure mortality is substantial and prolonged survival of very underweight, dysphagic, demented patients without tube feeding is common.

Feeding tubes have not been shown to improve pressure sore outcomes.,
the relationship between nutrient intake and pressure sores is tenuous at best.

Conclusions cont.

It has not been shown to reduce infection, but, on the contrary, feeding tubes have been shown to cause serious local and systemic infection.

Functional status has not been improved.

Demented patients are not made more comfortable with tube feeding .

Dozens of serious adverse effects have been reported.

Conservative measures are available although these are not well studied.

Randomized clinical trials of this intervention in this population would be tremendously complex both ethically and clinically.

Feeding Tubes and the Prevention or Healing of Pressure Ulcers

Joan M. Teno, MD, MS; Pedro Gozalo, PhD; Susan L. Mitchell, MD, MPH; Sylvia Kuo, PhD; Ana T. Fulton, MD; Vincent Mor, PhD

Arch Intern Med. 2012;172(9):697-701

- Physical or pharmacological restraints can result in immobility that can increase risk of a pressure ulcer.
- tube-fed patients can develop diarrhea from tube feeding that potentially can increase the risk of pressure ulcer.
- Using 8 years of national Minimum Data Set data and Medicare claim files to characterize the benefits and risks of PEG feeding tube insertion.
- we restricted the analysis to NH residents who had been hospitalized at least once within the first year of entering the cohort.
- Patient with severe impairment and need for assistance in eating
- Our main independent measure was whether the patient had a PEG feeding tube inserted during a hospitalization.

Variables included in the model were

1. Sociodemographic variables (age, sex, race, marital status, education).
2. Evidence of advance-care planning including advance directives, do-not-resuscitate order, do-not-hospitalize order, and any feeding restrictions.
3. 19 medical diagnoses (eg, cancer, *clostridium difficile* diarrhea, stroke, hip fracture, diabetes).
4. Clinical conditions including dehydration, inability to consume food or fluids, fever, wound infection, weight loss, swallowing problems, chewing problems, syringe feeding, mechanically altered diet, and dietary supplementation.
5. Body mass index (BMI).
6. Measures of functional status and disease severity, including activities of daily living score.
7. 2 models that predict mortality (the ADEPT [advanced dementia prognostic tool] score17 and CHESS [changes in health, end-stage disease, and symptoms and signs] score18).

Feeding tube effect of pressure sore healing / developement

without pressure ulcer	with a PEG tube	more likely to develop a new pressure ulcer 2.27 times	 (95% CI, 1.95-2.65)
with pressure ulcer	with a PEG tube	Less healing OR 0.70	 (95% CI, 0.55-0.89)

Table. Baseline Characteristics of Hospitalized Nursing Home Residents With and Without a Feeding Tube Inserted During the Relevant Hospitalization[a]

Characteristic	No Pressure Ulcer			Pressure Ulcer		
	Without Feeding Tube	With Feeding Tube	*P* Value	Without Feeding Tube	With Feeding Tube	*P* Value
Weighted persons	n = 1124	n = 1124	NA	n = 461	n = 461	NA
Unique persons	n = 2082	n = 1124	NA	n = 754	n = 461	NA
Age, mean (SD), y	82.7 (7.5)	82.9 (7.1)	.40	82.5 (7.6)	83.0 (7.5)	.19
Married	27.5	24.8	.04	28.6	27.8	.70
Female	68.7	70.8	.13	64.6	65.3	.75
Race						
White	85.4	83.3	.15	58.2	56.8	.55
African American	25.5	27.0	.29	32.2	32.1	.96
Hispanic	7.4	7.6	.88	7.7	9.1	.30
Other	1.6	2.5	.22	1.8	2.0	.82
Completed high school	54.9	53.1	.24	47.9	51.4	.14
Advance care planning						
DPOA	23.4	22.8	.64	14.6	17.8	.07
Living will	9.2	9.6	.65	5.6	17.8	.67
DNR order	35.3	33.7	.28	33.8	33.8	.97
DNH order	1.3	0.9	.25	1.0	1.1	.88
Orders to forgo artificial hydration and nutrition	8.36	8.70	.62	2.7	2.6	.89
Medical history						
Diabetes	23.2	23.3	.92	38.9	34.9	.08
CAD	12.8	11.7	.23	11.6	11.2	.85
CHF	15.5	14.7	.43	22.4	18.9	.07
COPD	10.7	10.7	.99	11.9	9.5	.11
Cancer	4.3	3.5	.13	4.5	4.6	.91
Hip fracture	6.5	6.5	.98	9.8	10.6	.58
Risk factors for feeding tube insertion						
Weight loss	22.3	23.7	.27	31.0	30.1	.72
Swallowing problems	35.8	38.9	.04	41.5	43.2	.47
Chewing problems	51.0	52.0	.53	54.6	56.8	.33
Mechanically altered diet	42.5	44.8	.13	51.5	53.4	.43
ADL score, mean (SD)	25.8 (2.9)	26.2 (2.5)	<.001	27.2 (1.5)	27.2 (1.5)	.43
Mortality, d						
30	1.9	2.0	.92	3.3	3.0	.76
60	5.5	7.0	.04	12.7	10.6	.17
180	20.1	24.0	.004	37.8	40.6	.23

Abbreviations: ADL, activities of daily living; CAD, coronary artery disease; CHF, congestive heart failure; COPD, chronic obstructive pulmonary disease; DNH, do not hospitalize; DNR, do not resuscitate; DPOA, durable power of attorney; NA, not applicable.

[a] Unless otherwise indicated, data are reported as percentage of patients.

From: **Feeding Tubes and the Prevention or Healing of Pressure Ulcers** Arch Intern Med. 2012;172(9):697-701.

180 days follow up	Mortality	
Without PEG	20.1	
With PEG	24.0	

180 days follow up	Mortality %	Survival %
Without PEG	20.1	79.9
With PEG	24.0	76.0

כמה חולים יכולים לשרוד משך 180 יום ללא אוכל ושתיה?

- האם החולים עם PEG אכן היו ברי השוואה לחולים שהוזנו <u>שלא</u> בהזנה אנטרלית?

- ומה היתה הסיבה להזנה אנטרלית באלו שהיו בקבוצת ה-PEG לעומת אלו שהזנו דרך הפה?

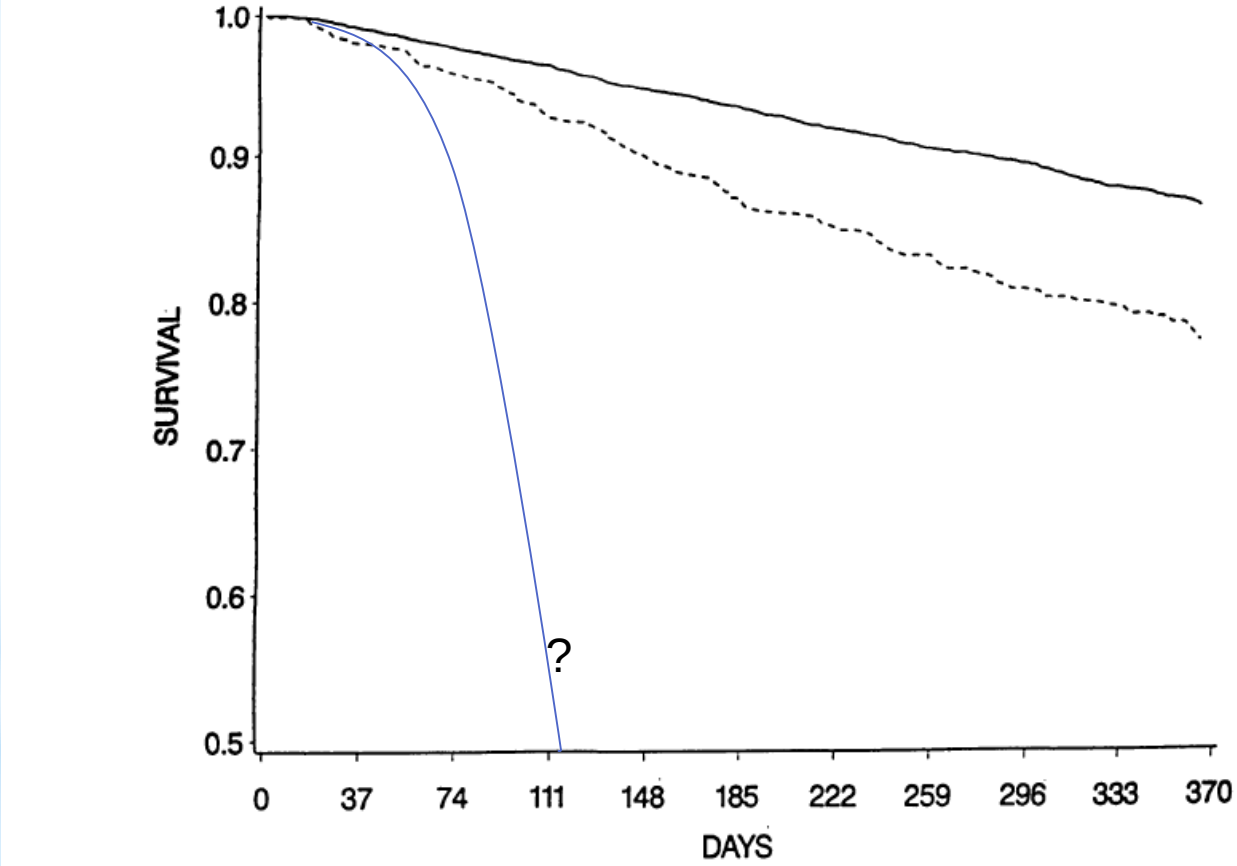

Figure 1. One-year survival comparison of residents with chewing and swallowing problems with (dotted line) and without (solid line) feeding tubes. By the end of the follow-up period, 77% of subjects were still alive; accordingly, the y axis is scaled to originate at 0.5.

INVITED COMMENTARY

Tube Feeding and Pressure Ulcers

Evidence of Harm From the Intervention

Colleen Christmas, MD
Thomas E. Finucane, MD

ARCH INTERN MED/ VOL 172 (NO. 9), MAY 14, 2012

Ideally, substitute decision makers who had been persuaded to accept tube feeding for the patient would be asked, perhaps in the endoscopy suite, to randomize the patient with a chance that tube feeding would be withheld.

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Percutaneous Endoscopic Gastrostomy: High Mortality Rates in Hospitalized Patients

Galia Abuksis, R.N., M.A., Melli Mor, R.N., Negba Segal, R.N., Ilana Shemesh, R.N., Shlomit Plout, R.N., Jaqueline Sulkes, Ph.D., Gerald M. Fraser, M.D., F.R.C.P., and Yaron Niv, M.D.

The Departments of Gastroenterology and Epidemiology, Beilinson Campus, Rabin Medical Center and Sackler Faculty of Medicine, Tel-Aviv University, Petach Tikva, Israel

Table 6. Characteristics of the Patients Who Died

	Group 1	Group 2	Group 3	Group 4	*p**	*p*†	*p*‡
Number	47	67	67	1035			
Median follow-up	248 ± 208	105 ± 117	NA	NA	0.001		
Age, yr	86 ± 11	81 ± 16	82 ± 7	77 ± 8	NS	NS	<0.001
Range, yr	65–100	48–103	81–90	46–98			
Gender							
Men	5	20	4	39			
Women	13	24	5	33			
Died	18 (38%)	44 (66%)	9 (13%)	72 (7%)	0.004	<0.001	<0.001
30-day mortality	2 (4%)	20 (29%)	9 (13%)	67 (6%)	0.002	0.039	<0.001

* Comparison between Groups 1 and 2.
† Comparison between Groups 2 and 3.
‡ Comparison between Groups 2 and 4.
NA = not available.

Group 1: elective PEG insertion for patients from nursing homes;
Group 2: PEG insertion for hospitalized patients;
Group 3: hospitalized patients matched to Group 2 for diseases, except mental disorder, and not treated with PEG;
Group 4: the general hospital population matched for age

FIGURE 1

FROM:

Percutaneous endoscopic gastrostomy: high mortality rates in hospitalized patients

Galia Abuksis, Melli Mor, Negba Segal, Ilana Shemesh, Shlomit Plout, Jaqueline Sulkes, Gerald M Fraser and Yaron Niv

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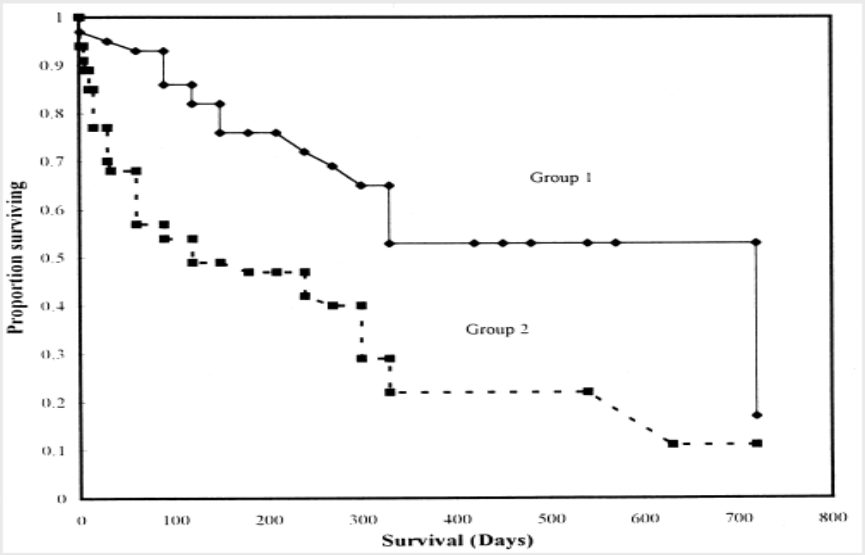
Figure 1.

Figure and tables index



Survival after insertion of PEG in outpatient (Group 1) and hospitalized patients (Group 2).

Figure and tables index

Percutaneous endoscopic gastrostomy; evidence of different prognosis in various patient subgroups

EPHRAIM RIMON[1,2], NADYA KAGANSKY[1], SHMUEL LEVY[1]

[1]Department of Geriatrics, [2]Gastroenterological Division, Kaplan-Harzfeld Medical Center, Rehovot. Affiliated to the Hebrew University and Haddassah Medical School, Jerusalem, Israel

Age and Ageing 2005; **34:** 353–357

Table 3. Cox regression of survival after PEG insertion in 674 patients

	Number of patients	Hazard ratio	Confidence interval	*P* values
Male	365	1.22	1.00–1.47	<0.05
Feeding difficulty	280	1.22	1.00–1.49	<0.05
Referral from hospital	244	1.44	1.19–1.74	<0.001
Diabetes mellitus	98	1.40	1.09–1.80	<0.01
Age >80 years	365	1.39	1.15–1.68	<0.001

Percutaneous endoscopic gastrostomy; evidence of different prognosis in various patient subgroups

EPHRAIM RIMON[1,2], NADYA KAGANSKY[1], SHMUEL LEVY[1]

[1]Department of Geriatrics, [2]Gastroenterological Division, Kaplan-Harzfeld Medical Center, Rehovot. Affiliated to the Hebrew University and Haddassah Medical School, Jerusalem, Israel

Age and Ageing 2005; **34:** 353–357

Table 2. Complications after PEG insertion ($n=674$)

	Number (%)
Early complications	
Severe wound infection	3 (0.4)
Peritonitis	4 (0.6)
Mortality	2 (0.3)
Reversible apnoea	4 (0.6)
Total number of patients	11 (1.6)[a]
Late complications	
Self-extubation	79 (11.7)
Local irritation	43 (6.4)
Leakage	35 (5.1)
Tube obstruction	28 (4.2)
Haematemesis	14 (2.1)
Buried bumper	5 (0.7)
Total number of patients	176 (26.1)[a]

[a]The total number of patients is less than the total sum of complications because some patients had more than one complication.

במהלך התקופה שהחולה הוזן בצינור (929 ימים) היה מאושפז סה"כ 26 יום עקב בעיות רפואיות שונות. מהם 14יום עקב הפרעות הנובעות מסיבוכי ההזנה האנטרלית. (1.6% מתקופת ההזנה האנטרלית.)

Mortality Among Patients Who Receive Or Defer Gastrostomy

Kurien M, Leeds JS, Delegge MH, Robson HE, Grant J, Lee FK, McAlindon ME, Sanders DS. Clin Gastroenterol Hepatol. 2013 Nov;11(11):1445-50.

30-day and 1-year mortalities of patients who were referred to hospitals for gastrostomies and of patients who deferred this intervention was assessed.

	N (%)	30 days	1 year
did not undergo gastrostomy	304 (23)	35.5%	74.3%
underwent gastrostomy	1027 (77)	11.2%	41.1%
			P < .0001

High In-hospital Mortality After Percutaneous Endoscopic Gastrostomy: Results of a Nationwide Population-based Study.

Arora G, Rockey D, Gupta S. Clin Gastroenterol Hepatol. 2013 Nov;11(11):1437-1444

In-hospital mortality was 10.8% among 181,196 patients who underwent PEG in 2006 (95% confidence interval, 10.3%-11.3%). Odds of death increased with age (1%/y), congestive heart failure, renal failure, chronic pulmonary disease, coagulopathy, pulmonary circulation disorders, metastatic cancer, and liver disease.

We have identified factors that increase and decrease the risk of death after PEG; these factors could improve patient selection for those most likely to benefit from this procedure.

בנושא:

קווים מנחים להזנה דרך גסטרוסטום אנדוסקופי

(PEG – Percutaneous Endoscopic Gastrostomy)

המלצות הועדה המקצועית מטעם:
האיגוד לגסטרואנטרולוגיה ומחלות הכבד (איג"א)

בעריכת:
פרופ' ירון ניב

2003

טבלה 12: תזמון וגישה

הנושא	סוג הפניה	הצהרה/הנחיה	התמיכה המדעית	דרוג ההצעה	מקדם אמינות*	ספרות
סיבוכים	הנחיה	1 אין לבקש הכנסת גסטרוסטום אנדוסקופי בחולים לא יציבים עם מחלות זהומיות, מחלות לב, ריאה וכליה הזקוקים לאיזון	1	א	0.65	3-1
		2 יש להזין חולים אלה דרך זונדה רגילה ולבקש הכנסת גסטרוסטום אנדוסקופי באם קיימת הוריה לכך רק לאחר איזון החולה	2	ב	0.52	3-1
		3 התור להכנסת הגסטרוסטום האנדוסקופי יינתן ל 30 יום לאחר שחרור החולה מבית החולים הכללי	3	א	0.22	3-1
		4 גישה פתוחה להכנסת גסטרוסטום אנדוסקופי אינה מומלצת לחולים מאושפזים, אך אפשרית לחולים אמבולטורים	1	ב	0.34	4

סיכום

המסקנה להימנע מהמלצה להזין את החולה הדמנטי עם הפרעות אכילה מתעלמת ממספר נקודות עקרוניות:

- הבדל בין הזנה בזונדה, דרך גסטרוסטומיה מילעורית או גסטרוסטומיה כירורגית.
- הבדל בין התקנת PEG בזמן אישפוז חריף לעומת התקנה כפרוצדורה אלקטיבית.
- הערכת היחס בין חומרת הסיבוכים למשך התקופה בה החולה נזון דרך ה – PEG ללא סיבוכים.

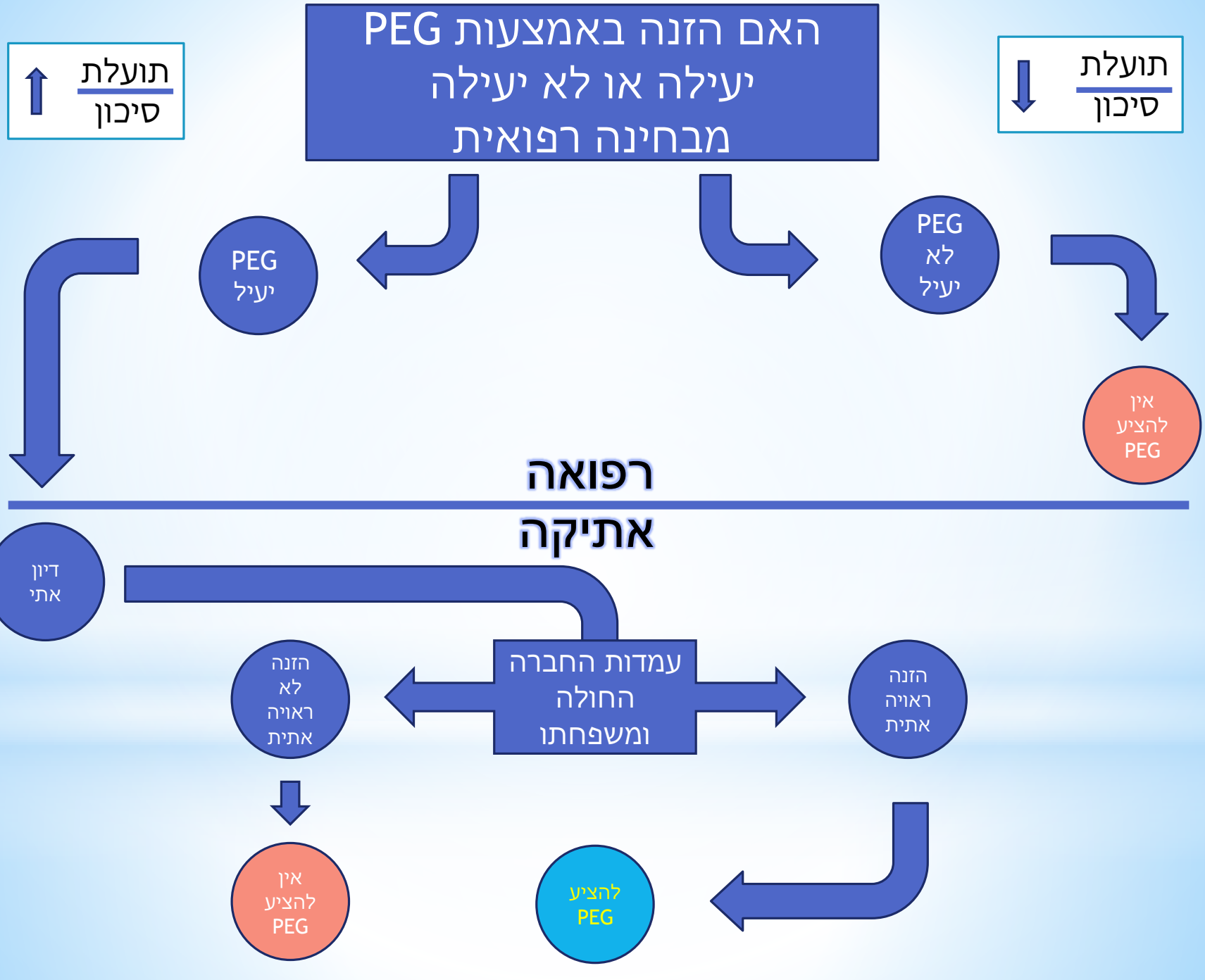
סיכום

1. הזנה דרך הפה עדינה נתמכת הינה ללא ספק הדרך הנכונה עבור החולה הסובל מדמנציה מתקדמת כאשר היא ישימה.
2. עבור חולים הסובלים מדמנציה מתקדמת שהזנה נתמכת עדינה אינה ישימה – הזנה דרך PEG הינה אפשרות טכנית טובה.
3. אין לבצע החדרת PEG בזמן אישפוז עקב מחלה חריפה. יש לדחות את הפרוצדורה כחודש לאחר התייצבות החולה.
4. ההחלטה האם להזין את החולה הסובל מדמנציה מתקדמת היא שאלה אתית ויש לדון בה בהיבט הזה.

האם הזנת החולה הסובל מדמנציה מתקדמת מוצדק מבחינה אתית?

שאלת עליונות קדושת החיים לעומת איכות החיים:

- תרבות
- חינוך
- אמונה
- דת
- רצונות אישיים


האם הזנה באמצעות PEG
יעילה או לא יעילה
מבחינה רפואית
תועלת
סיכון
תועלת
סיכון
PEG
יעיל
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לא
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להציע
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רפואה
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דיון
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עמדות החברה
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PEG
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