Contents

The features marked with a star (*) are based entirely on material taken straight from standard research (and other Official and Therefore Always Correct) literature. Many of the other articles are genuine, too, but we don't know which ones.

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There's always new improbable — it's not what you expect! — stuff on the **Improbable Research blog** at **IMPROBABLE.COM**

On the Front Cover

Methods for "Head-Down Self-Treatment of Choking." See page 16.

On the Back Cover

A isopropyl alcohol bottle's label implies the existence of many curious histories: "Do not point at self or others; product will squirt when squeezed." Photo: A.S. Kaswell.

Some Coming Events

See IMPROBABLE.COM for details of these and other events:

Many Dates
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Ig Nobel Prize Ceremony, Harvard U

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Annual "Science Friday" radio broadcast

February 16, 2019
AAAS, Washington, DC

March/April 2019
Ig Nobel EuroTour

The Paper Clip in Medicine

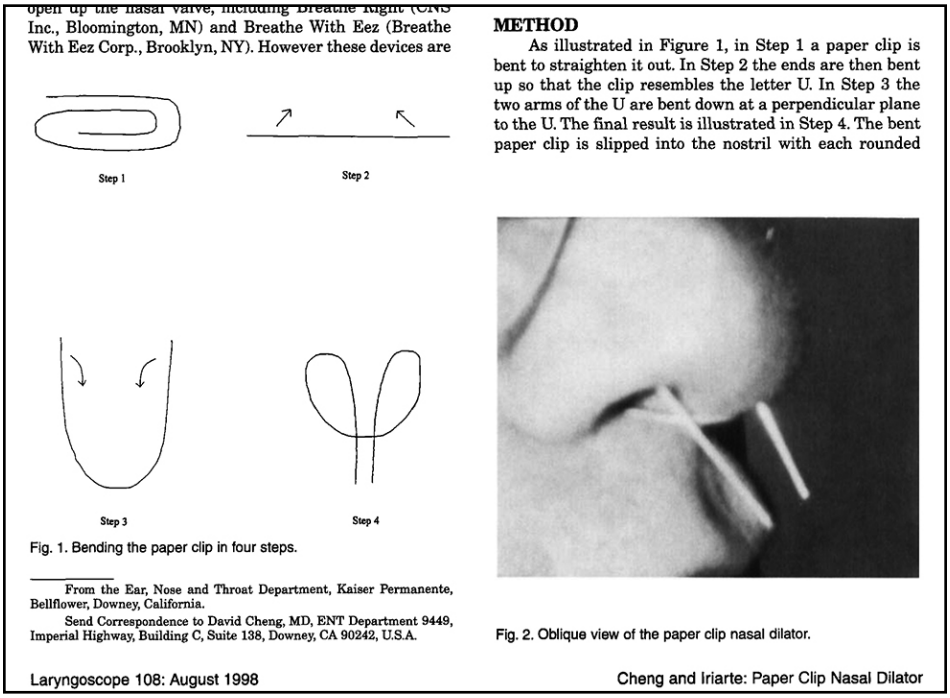
Reports of how little things can make a difference

by Otto Didact, Improbable Research staff

The Paper Clip Nasal Dilator

"The Paper Clip Nasal Dilator," David Cheng and G. Constanza Iriarte, *The Laryngoscope*, vol. 108, no. 8, 1998, pp. 1247-1248. The authors, at Kaiser Permanente, Bellflower, Downey, California, explain:

> A narrow nasal valve causes severe obstruction and is very difficult to fix. Many people have tried surgical approaches, including spreader grafts, with mixed results. Recently there have been appliances used to spread and open up the nasal valve, including Breathe Right (CNS Inc., Bloomington, MN) and Breathe With Eez (Breathe With Eez Corp., Brooklyn, NY). However, these devices are expensive if used on a long-term basis. For example, Breathe Right costs $10 to $15 per month and Breathe With Eez costs $15 to $20 and gets lost easily. We would like to introduce an inexpensive device devised by a patient of ours for dilating the narrow nasal valve.



open up the nasal valve, including Breathe Right (CNS Inc., Bloomington, MN) and Breathe With Eez (Breathe With Eez Corp., Brooklyn, NY). However these devices are

Step 1 Step 2 Step 3 Step 4

Fig. 1. Bending the paper clip in four steps.

From the Ear, Nose and Throat Department, Kaiser Permanente, Bellflower, Downey, California.

Send Correspondence to David Cheng, MD, ENT Department 9449, Imperial Highway, Building C, Suite 138, Downey, CA 90242, U.S.A.

METHOD

As illustrated in Figure 1, in Step 1 a paper clip is bent to straighten it out. In Step 2 the ends are then bent up so that the clip resembles the letter U. In Step 3 the two arms of the U are bent down at a perpendicular plane to the U. The final result is illustrated in Step 4. The bent paper clip is slipped into the nostril with each rounded

Fig. 2. Oblique view of the paper clip nasal dilator.

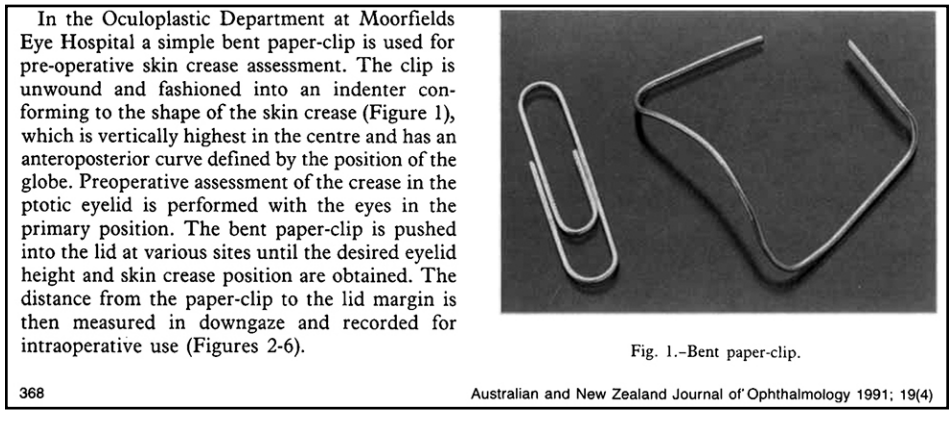
Laryngoscope 108: August 1998 Cheng and Iriarte: Paper Clip Nasal Dilator

Detail from the study "The Paper Clip Nasal Dilator."

Paper Clip for Upper Eyelid Skin Crease Assessment

"Paper-Clip Technique for Upper Eyelid Skin Crease Assessment," P.M. Rosser and J.R.O. Collin, *Australian and New Zealand Journal of 'Ophthalmology*, vol. 19, no. 4, 1991, p. 368. The authors, at Moorfields Eye Hospital, London, UK, report:

> The placement of the upper lid skin crease is an important consideration in many lid procedures.... An eyelid raised to the correct height following ptosis surgery will by optical illusion appear low if the skin crease is set higher than that on the contralateral side.... The 'paper-clip technique' has been used here effectively for over 10 years and without the negative reactions from patients which have been reported elsewhere.



In the Oculoplastic Department at Moorfields Eye Hospital a simple bent paper-clip is used for pre-operative skin crease assessment. The clip is unwound and fashioned into an indenter conforming to the shape of the skin crease (Figure 1), which is vertically highest in the centre and has an anteroposterior curve defined by the position of the globe. Preoperative assessment of the crease in the ptotic eyelid is performed with the eyes in the primary position. The bent paper-clip is pushed into the lid at various sites until the desired eyelid height and skin crease position are obtained. The distance from the paper-clip to the lid margin is then measured in downgaze and recorded for intraoperative use (Figures 2-6).

Fig. 1.–Bent paper-clip.

368 Australian and New Zealand Journal of Ophthalmology 1991; 19(4)

Detail from the study "Paper-Clip Technique for Upper Eyelid Skin Crease Assessment."

continued >

The Paper Clip in Medicine [continued]

A Paper Clip to Treat Acne (1999)

"Surgical Pearl: Versatile Paper Clip Comedo Extractor for Acne Surgery," Joseph L. Cvancara and Jeffrey J. Meffert, *Journal of the American Academy of Dermatology*, vol. 40, no. 3, March 1999, pp. 477-478. The authors, in the US Air Force, at Fort Sam Houston, Texas, report:

> Since the 1870s when Dr Henry Piffard first devised an acne instrument, comedo extractors have been used in physicians' offices.... Today, many designs and prices exist, ranging from disposable $3 to reusable $40 instruments. We report an effective and simple comedo extractor design utilizing ordinary paper clips.

Alternative to a Paper Clip to Treat Acne (2004)

"Surgical Pearl: The Safety Pin As a Better Alternative to the Versatile Paper Clip Comedo Extractor," Muhammed Mukhtar and Rajeev Sharma, *International Journal of Dermatology*, vol. 43, no. 12, December 2004, pp. 967-968. The authors, at the Sofia Skin Center, Patna, India, and the Bishen Skin Center, Aligarh, India, explain:

> Acne vulgaris is a very common, chronic inflammatory disease of the pilosebaceous apparatus. The comedo extractor is the instrument primarily used for comedo extraction. There are many types of more costly instruments available, but extraction can be achieved with the help of a modified versatile paper clip and disposable syringes. The disposable syringe is a good option for acne surgery, but a safety pin has been found to be more effective than the clip comedo extractor for extracting the comedo. The safety pin can be regarded as a "two-in-one" instrument for piercing the lesion and for extracting the keratinous material from the pilosebaceous canals

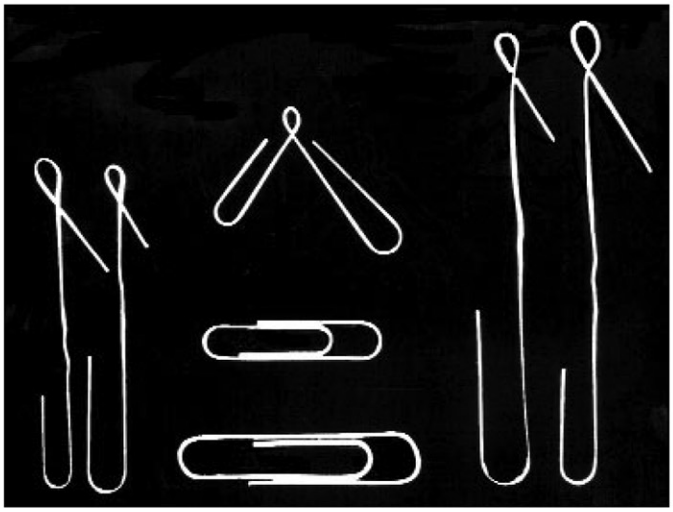


Fig 1. Numerous configurations demonstrating the versatility of the paper clip.

Fig 3. Cyst and paper clip comedo extractor during expression.

Detail from the study "Surgical Pearl: Versatile Paper Clip Comedo Extractor for Acne Surgery."

Medical Nitroglycerine Explosions [continued]

Unexpected Nitroglycerine Explosion (1990)

"The Hazards of Defibrillation Through Nitroglycerin Patches," Keith Wrenn, *Annals of Emergency Medicine*, vol. 19, no. 11, November 1990, pp. 1327-1328. The author, at Emory University School of Medicine, Atlanta, Georgia, reports:

> A case is presented in which defibrillation with one paddle placed over a nitroglycerin patch produced an explosion and brief flame. Although no adverse effects occurred in this patient, the dangers of arcing during defibrillation and ineffective delivery of current to the heart are self-evident.

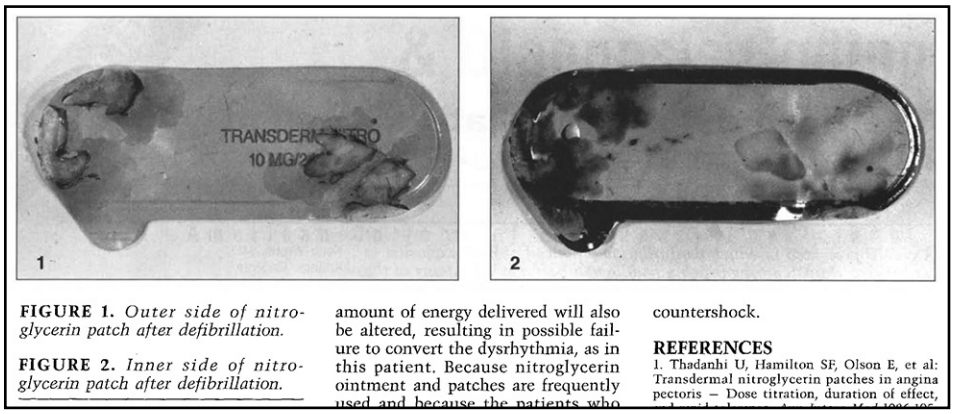


FIGURE 1. *Outer side of nitroglycerin patch after defibrillation.*

FIGURE 2. *Inner side of nitroglycerin patch after defibrillation.*

amount of energy delivered will also be altered, resulting in possible failure to convert the dysrhythmia, as in this patient. Because nitroglycerin ointment and patches are frequently

countershock.

REFERENCES

1. Thadanhi U, Hamilton SF, Olson E, et al: Transdermal nitroglycerin patches in angina pectoris — Dose titration, duration of effect,

Detail from the study "The Hazards of Defibrillation Through Nitroglycerin Patches."

Unexpected Nitroglycerine Explosion (1992)

"Report of Nitropatch Explosions Complicating Defibrillation," Edward A. Panacek, Mark A. Munger, William F. Rutherford, and Stephanie F. Gardner, *American Journal of Emergency Medicine*. vol. 10, no. 2, March 1992, pp. 128–129. The authors, at Case Western Reserve University School of Medicine, explain:

> Reports of complications associated with the use of electrical defibrillators have been relatively rare.... Healthcare professionals who may perform defibrillation should be aware of this potential complication.... In this investigation we report two cases...
>
> [Case number 1]—On this occasion, there was a moderately loud popping sound which startled everyone in the resuscitation room. In addition. a small amount of smoke emanated from underneath the defibrillation pad which was over the right upper anterior chest. Examination underneath the defibrillation pad revealed the presence of the nitroglycerin patch....
>
> [Case number 2]— On the second defibrillation attempt a "clapping" type sound and a "spark" were noted and the patient converted to sinus tachycardia. Upon removing the defibrillation paddles and pads, a flesh colored nitropatch was noted on the patient's right upper chest. There was an area of darkened skin discoloration around the patch and a "smoky" smell was noted by the paramedics.

Stephanie F. Gardner, co-author of the study "Report of Nitropatch Explosions Complicating Defibrillation." Drawing by Nan Swift, Improbable Research staff.

Edward A. Panacek, co-author of the study "Report of Nitropatch Explosions Complicating Defibrillation." Drawing by Nan Swift, Improbable Research staff.