

Published by the Board of Editors in the Life Sciences



Repetitive Stress Injuries in Computer Users: Overview and Treatment

By Kendall Wills Sterling, ELS

Repetitive stress injuries (RSIs), also called cumulative trauma disorders, currently account for more than 50% of all occupational illness in the United States. They affect 15% to 20% of Americans, and their incidence is increasing. Although they are often referred to as tendinitis injuries, in most cases they are actually degenerative lesions.

RSIs are quite costly both economically and socially. Costs in 1995 for carpal tunnel surgery alone exceeded \$2 billion,⁵ and one estimate has placed treatment and related expenses for all RSIs at more than \$20 billion annually.⁶ By the year 2000, more than 50 cents of every dollar spent on occupational injuries was expected to go toward treatment of RSIs.²

The toll exacted by RSIs is not limited to health care expenses. The most common RSI, carpal tunnel syndrome, requires the longest recuperation of all injuries resulting in lost workdays, with a median of 30 days away from work. Individuals affected by an RSI frequently experience considerable pain and functional impairment that may necessitate physical therapy, surgery, or, in extreme cases, a change in occupation.

Examples of RSIs include upper extremity tendinitis, carpal tunnel syndrome, tennis elbow, tension neck syndrome, and various other neuropathies and musculoskeletal disorders. A disorder known as computer vision syndrome, a complex of eye and vision problems characterized by visual symptoms resulting from computer use, can also occur. (Computer vision syndrome and its treatment and prevention will be covered in a later article.)

Executive Council

Flected:

President

Shirley M. Peterson, ELS

President-Elect

Walter Pagel, ELS(D)

Secretary

Mary Ann Schmidt, ELS

Treasurer

Nancy D. Taylor, ELS

Appointed:

Certification Exam Development

Karen F. Phillips, ELS

Diplomate Exam Development

Norman Grossblatt, ELS(D)

Registrar-Exam Administration, ELS

Leslie E. Neistadt, ELS

Appeals

Carol Kakalec Kohn, ELS(D)

Member Relations

Kim Berman, ELS

Public Relations

Jim Cozzarin, ELS

Nominations and Election

Grace Darling, ELS(D)

BELS Letter

Ann Morcos, ELS

Web-Site Management

Flory Nye-Clement, ELS

Editor

Ann Morcos, ELS

Column Editor

Barbara Schwedel, ELS

Contributors

Eleanor Mayfield, ELS Kendall Wills Sterling, ELS

Announcement

The BELS EC has voted to eliminate the proctored written examination (Part 2) of the diplomate examination. Watch your mailbox for background information and ballot for bylaws chantes.

Features

1

Repetitive Stress Injuries in Computer Users: Overview and Treatment

3

From the Editor

4

How's That Again? BELS Serves

5

BELS 11th Annual Meeting Itinerary

6

Member Contact Information Update

10

Examination Schedule

Musculoskeletal Disorders

Pathology and Etiology

Much of the pathology and etiology of RSIs remains unclear. Heavy repeated forces cause degenerative changes that can be documented radiographically, but repeated light loading, such as occurs in computer keyboard use, often cannot be adequately evaluated with current imaging and clinical techniques.9 Although some studies have shown a causal relationship between repetitive, forceful work and the development of musculoskeletal disorders in the hand and wrist or shoulder, 10,11 others have been unable to consistently demonstrate conclusive evidence that repetitive mechanical loading is a major etiologic factor in RSIs.12,13 What is known is that workers who use a computer 4 or more hours per day typically report significantly more symptoms than those who do not use a computer for prolonged periods.14

RSIs have been consistently correlated with age and decreased tendon vascularity, but the importance of these factors as causes has not been determined.12 Increased hand forces and greater frequency of finger movements are commonly associated with RSIs, but ergonomic (eg, wrist postures) and sexand disease-related factors also appear to play a role. Neck and upper limb disorders are associated with work performed with a flexed neck and elevated and abducted arms.10 Females appear to be more prone to RSIs than males, possibly because of the influence of pregnancy-associated factors on gene expression in tendons.3 Individuals with diabetes, hypothyroidism, rheumatoid arthritis, and lupus erythematosus have a higher risk for some RSIs, such as carpal tunnel syndrome. Obese persons are more than 3 times as likely as nonobese persons to have impaired nerve conduction.15 which can result in an RSI, but nerve conduction does not necessarily correlate with severity of symptoms; symptoms may be severe without significant conduction deficits, and vice versa.

Finally, stress and tension (eg, both work that is perceived as stressful as well as personal stressors) also increase the likelihood that a person will experience an RSI.13,14,16

Symptoms

A common precursor to an RSI is a stiff or aching neck or shoulders. This is generally followed by tendinitis, the earliest recognizable manifestation of overuse injury. 17 Symptoms may include muscle pain and tenderness, usually in the neck and shoulder area or

the forearm and hand musculature; numbness, tingling (a "pins-and-needles" sensation), or burning in the wrist, hands, or fingers; and loss of hand, arm, or shoulder strength. Pain and numbness often occur at night, disturbing normal sleep patterns. Advanced symptoms may include weakness of the hands, difficulty manipulating small objects, and loss of hotcold sensation. Recurrent or persistent symptoms require a thorough examination by a medical professional. If the overuse continues, partial tears or complete ruptures may follow.

In addition to the physical discomfort produced by an RSI, persons experiencing these injuries have elevated levels of anxiety, depression, anger, confusion, and fatigue, likely as a result of chronic pain.¹⁵

Treatment

Successful resolution of an RSI depends on early diagnosis and appropriate treatment.8 The longer the injury is left untreated, the greater the chance that symptoms will become permanent. Diagnosis involves identifying not only the affected tendinous unit, but also the underlying predisposing condition(s).17 Conventional treatment is aimed at elimination or correction of the conditions underlying the RSI, control of inflammation, and use of modalities designed to restore the structural and functional integrity of the tendon.17 It can take several forms, including injection of local anesthetics and steroids;1 use of antiinflammatories (eg, nonsteroidal anti-inflammatories); physical therapy (eg, flexibility and strength training and splinting); and, in cases refractory to conservative methods, surgery. So-called alternative treatments may reduce stress and thereby provide relief for patients.

Conventional Treatment

Cortisone injections have produced mixed results, with complete resolution of symptoms occurring in some cases but not in others. 1,12



Higher doses and more frequent administration can lead to serious side effects, such as weight gain, elevated blood pressure, and osteoporosis.¹⁸

Anti-inflammatories resulted in some pain relief in 5 of 9 placebo-controlled studies summarized by Almekinders and Temple¹² but are generally considered ineffective. Vitamin B6 (50 to 500 mg/day for 3 months) has also been prescribed to reduce swelling in the synovial membranes that lubricate tendons, but should be used with caution, as chronic B6 overdose can lead to neuropathy. Physical therapy modalities, such as ice packs, electrical stimulation, ultrasound, and deep tissue massage, can be helpful, but heat should be avoided. Splinting is effective in as many as two thirds of cases,15 and joint manipulation to correct biomechanics, which should be performed by a chiropractor, can also be beneficial. Stretching exercises for the hands, wrist, upper extremity, or shoulder and back may serve to increase mobility and help lengthen contracted nerves, as well as strengthen the involved joint. However, these conservative measures generally require 12 to 20 weeks to be effective.

Surgery to correct the disorder, while effective, may not be possible in all cases. In carpal tunnel release surgery, the most common RSI-related surgical procedure, the transverse ligament is cut, which often provides immediate relief; recovery time is 4 to 8 weeks. However, a small but significant percentage of patients experience relapse and may require a second surgical procedure. 19

Alternative Treatments

Yoga, an ancient practice that uses stretching and improves strength, has demonstrated benefit for many types of arthritis.20 The results of a limited study of yoga in patients with carpal tunnel syndrome, published in the Journal of the American Medical Association,21 indicated that yoga may also relieve the symptoms of carpal tunnel; this finding is based on an 8-week program in which patients with carpal tunnel syndrome were assigned to participate in a yoga program or were given a wrist splint and no exercise. Yoga resulted in a significant decrease in pain and an increase in grip strength; control participants did not experience these improvements. The importance of posture, muscle strength, and flexibility in preventing RSIs make yoga a good choice both for development of these characteristics and for relief of the stress that is associated with RSIs.

Other relaxation techniques may also ease muscle tension and reduce fatigue. These

include chi gong (or chi kung) stances and meditation to relieve pain and promote healing, and ba duan jin exercises to improve strength and stimulate blood circulation.

Summary

RSIs are the leading occupational illness in the United States and result in high health care costs and significant disability in those affected. Although their pathology and etiology remain unclear, certain factors-age, reduced tendon vascularity, female sex, ergonomic factors, and stress-are known to play a role. Treatment may consist of both conventional methods (eg, physical therapy and surgery) and alternative methods (eg. yoga). However, at least 1 study has suggested that current treatment methods may not significantly affect the natural history of the disease.12 Because postinjury therapy often is not effective, prevention remains the best treatment for RSIs in the workplace.2 The next article in this series will discuss prevention measures to reduce the incidence of RSIs. Readers desiring more detailed information can find links to online consumer documents detailing common occupation-related hand/wrist/arm problems, medical diagnosis, treatment, rehabilitation, and prevention at http://www.nlm.nih.gov/medlineplus/hand- wristarminjuriesanddisorders.html>.

References

- Silver JK, Rozmaryn LM. Overuse tendinitis of the intrinsic muscles. Orthopedics 1998;21(8):891–4.
- Melhorn JM. Cumulative trauma disorders and repetitive strain injuries. Clin Orthop 1998;351:107–26.
- Hart DA, Archambault JM, Kydd A, Reno C, Frank CB, Herzog W. Gender and neurogenic variables in tendon biology and repetitive motion disorders. Clin Orthop 1998;June(351):44–56.
- Kibler WB, Chandler TJ, Pace BK.
 Principles of rehabilitation after chronic tendon injuries. Clin Sports Med 1992;11(3): 661–71.
- Palmer DH, Hanrahan LP. Social and economic costs of carpal tunnel surgery. Instr Course Lect 1995;44:167–72.
- Greenstein JS. Carpal tunnel syndrome.
 The Medical News 1999 Aug:1.
- National Institute of Occupational Safety and Health, US Department of Health and Human Services. National Occupational Research Agenda: Musculoskeletal disorders

- of the upper extremities. No date given. Online document available at http://www.cdc. gov/niosh/nrmusc.html>. [Accessed 2002 Jan 28].
- Rempel DM, Harrison RJ, Barnhart S.
 Work-related cumulative trauma disorders of the upper extremity. JAMA 1992;267(6): 838–42.
- Allan DA. Structure and physiology of joints and their relationship to repetitive strain injuries. Clin Orthop 1998;351:32–8.
- Ohlsson K, Attewell RG, Palsson B, Karlsson B, Balogh I, Johnsson B, Ahlm A, Skerfving S. Repetitive industrial work and neck and upper limb disorders in females. Am J Ind Med 1995;27(5):731–47.
- Stock SR. Workplace ergonomic factors and the development of musculoskeletal disorders of the neck and upper limbs: A metaanalysis. Am J Ind Med 1991;19(1):87–107.
- Almekinders LC, Temple JD. Etiology, diagnosis, and treatment of tendinitis: An analysis of the literature. Med Sci Sports Exerc 1998;30(8):1183–90.
- Smutz WP, France EP, Bloswick DS.
 Measurement of creep strain of flexor tendons during low-force high-frequency activities such as computer keyboard use. Clin Biomech (Bristol, Avon) 1995;10(2):67–72.
- Hess D. Employee perceived stresss.
 Relationship to the development of repetitive strain injury symptoms. AAOHN J 1997;45 (3):115–23.
- The Computists' Communique. 1993
 Nov 11;3(43). Online document available at
 http://www.computists.com/tcc/tcc3n43.html
 [Accessed 2002 Jan 28].
- Pope DP, Silman AJ, Cherry NM,
 Pritchard C, Macfarlane GJ. Association of occupational physical demands and psychosocial working environment with disabling shoulder pain. Ann Rheum Dis 2001;60(9): 852–58
- Hess GP, Cappiello WL, Poole RM,
 Hunter SC. Prevention and treatment of overuse tendon injuries. Sports Med 1989;8(6): 371–84.
- 18. MedicineNet.com. Cortisone injection (corticosteroid injection) of soft tissues & joints. Online document available at ">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=1>">http://www.focusonallergies-asthma.com-script/main/Art.asp?li=MNI&ArticleKey=11574&page=115744&page=115744&page=115744&page=115744&page=115744&page=11574&page=115744&
- Tung TH, Mackinnon SE. Secondary carpal tunnel surgery. Plast Reconstr Surg 2001;107(7):1830

 –43.
- Garfinkel M, Schumacher HR Jr. Yoga.
 Rheum Dis Clin North Am 2000;26 (1):
 125–32.

21. Garfinkel MS, Singhal A, Katz WA, Allan DA, Reshetar R, Schumacher HR Jr. Yoga-based intervention for carpal tunnel syndrome: A randomized trial. JAMA 1998;280(18):1601-03.



From the Editor By Ann Morcos, ELS

As editors, we all use computers daily, and some of us, more than likely, have experienced a repetitive stress injury. Such injuries are the major job hazard for regular computer users, and they become more common as we age. For those of us who have not experienced a repetitive stress injury, it is probably a good idea to practice prevention. Kendall Wills Sterling did extensive research on repetitive stress injuries and has written, not one, but 3 articles about the subject. The first article appears as our feature in this issue. The other 2 articles will appear in the Summer and Fall issues. As you will see, Kendall discusses causes and treatments in this first article. In the second article, she discusses prevention and provides many very practical suggestions for building an ergonomically appropriate work environment. In the third article, Kendall discusses computer vision syndrome because computers can affect not only our hands, arms, and wrists, but also our vision. These articles are overflowing with helpful tips for maintaining health. I have already examined my work station to make sure it is ergonimically appropriate. Next, I'll check out the eyeglasses to see whether I have been using the correct ones for computer work. Thanks, Kendall, for sharing tips we all can use to stay healthy.

Also in this issue Eleanor Mayfield provides us with a perfect example of why more BELS-certified editors are needed.

Continued on page 4

Continued from page 3

Don't miss the BELS 11th Annual Meeting Itinerary presented in this issue. As you know, the BELS Annual Meeting occurs in conjunction with the CSE Conference each year, which this year is in San Diego, CA, May 4-7. Hope to see you there!

The BELS Serves column in this issue is, as always, fantastic.

Do you want to meet the new members of the BELS Executive Council? Well, our next issue will introduce them to you!



How's That Again? By Eleanor Mayfield, ELS

I could not resist sharing—verbatim—a letter I recently received from a client, explaining why the client had sent me an amended Form 1099-MISC. It is the best example I have come across to date of why the world needs more BELS-certified editors!

Dear Ms. Mayfield,

We have enclosed an amended Form 1099-MISC to correct the reporting of the travel reimbursements that [Company X] has paid to you during 2001.

Reimbursements of travel expenses for a sub-contractor can be reported under two different methods, dependent upon the method of accounting for those travel expenses. If [Company X] would reimburse expenses for a subcontractor and not required a full accounting of those expense, then the reimbursements would be taxable for Form 1099-MISC purposes, and must be included in the Box 7, non-employee compensation along with any other payments for services provided. However, if [Company X] requires its subcontractors to fully account to [Company X]

for the subcontractors, then [Company X] would be allowed to not include the travel reimbursements in the non-employee compensation shown in Box 7 of the From [stet] 1099. For a plan to be fully accountable the plan must require that the following three requirements be met:

- There must be a business connection for the expenses.
- 2) The employee/sub-contractor, must either substantiate the expenses
- 3) The employee/sub-contractor must return to the employer any amounts in excess of the substantiated expenses (the return of any travel allowances to [Company X] in excess of any travel expenses submitted to [Company X]).

Since [Company X] requires that the employee or subcontractor fully account to it for its travel expense reimbursements, then it is able to elect not to report the reimbursements into the income shown in Box 7 of the Form 1099-MISC. Due to this clarification, we are able to amend you Form 1099-MISC to remove the travel reimbursements from Box 7.

We apologize for the confusion and inconvenience this may have caused you.

Sincerely,

[Name withheld] Director of Office Administration

Well, I'm glad that's cleared up! Final note:
The "amended" Form 1099-MISC enclosed
with this letter reported exactly the same
amount of nonemployee compensation (to the
penny) as the previous form it was supposedly correcting.



BELS Serves. Summarized Q&A From the BELS Mailing List Server

By Barbara Schwedel, ELS

Members made excellent use of the mailing list during the past several months—the BELS mailing list, in my opinion, is an ideal forum when you need information quickly and it's not readily available from published sources, or is inconsistent, and your colleagues (if you have them!) don't know. Six mailing list Q&A discussions are summarized in this column. I wish to express a huge thank you to the originators of the questions, as well as the respondents who agreed to be cited (even when material was cut because of space limitations!); moreover, I give double thanks to those originators of questions who actually provided summaries of their discussions.

Now, here are the Q&As:

Parentheses Around a Scientific Name: Italicized or Not?

Fran Aitkens posted the following query to the BELS mailing list: "Do you italicize the parentheses around a scientific name? I have always marked the scientific name italic and the surrounding parentheses roman, but a client says that the parentheses should be italicized." Fran went on to give the example "the Garry oak (Quercus garryana)." She noted, "I can't find a reference in the Council of Science Editors (CSE) manual. Any comments? (The client—a book publisher—did not have an actual directive for handling scientific names.)"

Fran received 25 replies from BELS members and 5 from the Association of Earth Science Editors (AESE) discussion list. The overall tally was as follows:

- For italic parentheses: 6 from BELS and 1 from AESE
- For roman parentheses: 17 from BELS and 4 from AESE
- Giving both sides of the discussion: 2 from BELS

Fran also noted, "Two people . . . reminded me, gently, that the client is the boss . . . "

Continued on page 7

BELS 11th Annual Meeting Itinerary San Diego, CA May 4-7, 2002

Saturday, May 4

BELS Examination,1 - 4 PM
Marin Room, Hyatt Regency Islandia

Proctor Training Session, 7:30 - 8:30 PM, Hyatt Garden Room E, Led by Peggy Chen (formerly with ETS). All BELS Members, including officers, are encouraged (or "urged") to attend.

Preliminary BELS Executive Council Meeting 8:30 PM (after CSE reception and Proctor Training Session)

Monday, May 6

BELS Annual Meeting and Dinner, 7:00 PM
Coral Room, Marina Village Conference Center
(a short walk along the water from the Hyatt)
Cost: \$25 per person

Tuesday, May 7

BELS Annual Executive Council Meeting
Hyatt Garden Room E, 6:00 PM



BELS Member Contact Information Update

Susan Aiello = wordsworld@att.net

Michael Altus = MichBALT@aol.com

Deborah J. Anderson = 21 Overhill Road, Catonsville, MD 21228-4924

Belinda Beck = belinda@cablespeed.com

Robert Bellandi = http://www.WebProsNY.com (replacement URL)

Suzanne Bristow-Marcalus = eve: (410) 352-3664; fax: (410) 352-3665

Martha Brookes = martha.brookes@orst.edu (replaces brookesm@fsl.orst.edu)

Kathryn M. Conway = Conway & Silver, Energy Associates LLC, PO Box 510, Nassau, NY 12132-0510; day: (518) 331-7236;

fax: (518) 477-2318; URL: www.ledconsulting.com

Grace Darling = zip correction: 75246-1790

Ada Romaine Davis = day: (202) 657-7278

Lindsay Edmunds = delete linelle@email.com and use lindsay@wordshapes.com

Maria Essig = fax: (208) 433-8149; mariaessig@aol.com (replaces outlier7@aol.com

Tinker Gray = day: (317) 891-8725

Carolinda Hales = 1718 Corcoran Street, NW, #11, Washington, DC 20009-2492; day: (202) 234-0336; delete fax and e-mail address

Elizabeth L. Hess = day: (301) 650-8660, ext 110

Penelope W. Hoeltzel = day: (484) 865-2019; fax: (484) 865-0068

Linda Jackim = jackim@home.com

Janice Jerrels = eve: (402) 292-2350

Julia Cay Jones = Science Editing, Mail Stop 765, St. Jude Children's Research Hospital, 332 N. Lauderdale,

Memphis, TN 38105-2794

Carol Kakalec Kohn = day: (919) 960-5812; ckkohn@intrex.net

John Keogh = day: (609) 895-8352; delete fax; johnckeogh@aol.com

Stephen R. Kepple = 1081 Zachary Taylor Highway, PO Box 173, Mineral, VA 23117-0173; day: (540) 894-8201; eve: (540) 894-8203

Jane M. Krauhs = 1103 Shoracres Boulevard, La Porte, TX 77571-7132

Candace Levy = cbl@WordAngler.net

Linda A. Loy = eve: (703) 354-0016

Ellen M. McDonald = day: (610) 975-4541, ext 144

Faith McLellan = The Lancet, 650 Avenue of the Americas, New York, NY 10011-2074

Janice E. Metcalf = new are code 585; phone numbers remain the same

Michael D. Murray = 2063 Atkins Road, Geneva, OH 44041-9339; eve: (440) 474-4441

Flory Nye-Clement = fax: (707) 562-7177

Karen F. Phillips = 2714 CR 719, Alvin, TX 77511-6125

Angelina Piccoli = delete evening phone number

Laurel Derks Prokop = TechStyle Group, PO Box 692347, Houston, TX 77269-2347; day and eve: (281) 251-2436 or 2438;

URL: 222.techstyle.com

Katie Racette = day: (505) 298-4500, ext 1246

Barbara Regan = add e-mail barbaraaregan@aol.com

Renee J. Robillard = Medical Writing & Research, 600 Tippecanoe Court, Lake Oswego, OR 97034-1664

Rebecca J. Schilling = DVM, MPH, ELS (Capitalize H in MPH)

Barbara Schwedel = day: (845) 602-4963; fax: (845) 602-5530; bschwedel@aol.com

Joan-Marie Stiglich = 18 Water's Edge Drive, Delran, NJ 08075-1898; eve: (856) 764-5554

Shirley Strunk = SLACK Incorporated, 6900 Grove Road, Thorofare, NJ 08086-9447

A representative comment in favor of italic parentheses was that of Jo Ann M. Eliason, who advised, "Style at our journal [Journal of Neurosurgery] is to italicize parens whenever the FULL contents of the parens are italicized " Jo Ann also commented (although this wouldn't apply to scientific names), "If only part of the contents are italicized, we do NOT italicize the surrounding parens." She gave 2 illustrative examples, "the Garry oak (Quercus garryana) " and "the glial cells (arrow in Fig. 3) " An authority that uses this approach is The New York Public Library Writer's Guide to Style and Usage (see the section titled "Punctuation That Follows Italics").

On the other hand, Kendall Wills Sterling favored roman parentheses, observing, "there are only a few situations where [italic parentheses] would be my choice, one of those being italic phrases in which the punctuation is entirely contained in the italic phrase (ie, surrounded by italics on all sides) " Kendall advised that the American Medical Association Manual of Style, 9th edition, does not provide explicit direction on this point, but does contain the following examples that are consistent with her position: "(see Helicobacter (formerly Campylobacter) pylori)" and "Moraxella (Branhamella) catarrhalis" (top of page 448). Mary Ann Schmidt, agreed with Kendall, "if you need an authority, check Words into Type, 3rd edition (Prentice-Hall, 1974). Although they don't spell out the rule, they don't italicize the parens around a scientific name, or any other italicized word (see pp. 141, 169, 172, and 212 for examples)."

Finally, some people use a completely different approach: Claudette Upton wrote, "just to throw a spanner in the works, I did some work for [The Society of Caribbean Ornithology] last year, and was told that the parentheses were no longer considered de rigueur" Claudette provided the example, "The West Indian Whistling-Duck Dendrocygna arborea is the largest of the 8 species of whistling ducks"

If one wants to go strictly by "rules," the bottom line is, as **Peggy Robinson** commented, "it seems that there is no firm agreement on this point, even among the experts." So how did Fran resolve things? She wrote, "It appears that when we have a personal preference, we like the look of roman parentheses. Chicago manual's ruling seems to be based on a possible conflict between the last italic letter and the roman closing parenthesis. I don't remember ever noting a problem in typeset material, but I'll sure be looking now. However, the actual wording of the Chicago Manual of Style, 14th edition, is that 'parentheses and brackets surrounding italic material may be set in italics ' [underlining Fran's]. Given this amount of freedom, I vote for roman parentheses, particularly for scientific names." She continued, "With the information from my correspondents, I was able to present both sides to my client, and she agreed that for this book (for which I'm the copy editor) and another in the series, we will have roman parentheses around italic scientific names."

Macintosh (Mac) or Personal Computer (PC)?

Denise Hodges wrote, "I'm a freelancer using a PC with Windows 98 and Office 2000. As a former Mac user who is still not very PC-savvy and has difficulty getting computer support when I need it, I have recently experienced a lot of PC/Windows-related problems that cause me to wonder: should I be using a Macintosh instead?" She continued, "I'd love to know how many of you use Macs in your work, whether your customers use them as well, and if not, if you know whether the Mac/PC and PC/Mac transfer has gotten any smoother over the past years. I've heard that the Mac X10 is a good machine, but again I'm concerned about getting support if I need it."

Denise summed up the responses she received as follows: "Six of the 7 respondents said they prefer the Macintosh to the PC, and use it in their work without any problems. Several said their customers, most of whom have PCs, don't even know what platform they use because the Mac-to-PC transfer has gotten so much smoother " Denise added that 2 Mac proponents "recommend Virtual PC, a software Windows emulation program that allows one to run Windows applications on a Mac." As for the 1 PC user, Denise observed, "she has never encountered a hightech client who works on a Mac, but thinks the conversion process is smoother now from Mac to PC than it once was."

Mac users had the following specific comments: Carol Kakalec Kohn advised, "I've been a Mac user ever since I met, computing although I've been 'forced' in my office jobs to use PCs. Now I work at home happily on my Mac." Lindsay Edmunds observed, "The pros of Macs are ease of use and increased OS stability The cons of Macs are higher prices, less software, and almost no presence in stores. So far, I believe the Mac is worth the cost." Christopher J. Czura wrote, "One of my clients-and unfortunately my biggest one-was so insistent that I use a PC, he bought a very nice (by Windows standards!) laptop for me. I am fairly well versed in Windows 2000 now, and I can certainly say that the Mac OS far exceeds Windows for ease of use and diagnostics " Christopher then echoed Lindsay about the high cost of Macs: "Upper-end Macs quickly outpace the cost structure of similarly-equipped PCs. For the average consumer, prices are comparable." On the subject of technical support, Mary L. Tod finds that "it's rarely needed, because it's a Mac. I've had the occasional need for help with tweaking something here and there, but a wonderful list called McEdit exists on Yahoo Groups with lots of Macsavvy helpful editors. Plus, there are all kinds of Mac e-mail newsletters to keep you advised of products and support. Depending on where you live, there may be a retail store for Apple products, and they [the retail store] may also have technical help Call me stubborn, but I love my Mac and would not think of switching to the other platform."

Respondents had the following to say about transfers between the 2 platforms: Carol Kakalec Kohn commented, "I have done freelance editing on my Mac for many years and usually don't know what platform my client is using. My approach has been to save the document as a Word 6.0 file, call it 'something.doc' and send it off. There have only been a couple of times where I've had to resave as another version " Kathleen Lyle advised, "For the kind of work I usually do-manipulating text files but not being responsible for the final format-I would say that Mac to PC conversion works fine most of the time." She later observed, "there is useful software, such as Mac Opener, which enables my PC to read the Mac-formatted disks that still come my way occasionally." Kathleen, however, noted, "There are always potential problems in converting files from one program or platform to another. The more complex the file, the more likely it is that something will go wrong. Fonts are often a difficulty, especially symbols and accents, and very small differences in font design and printer drivers can be a problem for typesetters "In addition, Christopher J. Czura advised that pre-98 Word and Excel documents, as well as current PowerPoint files, certain fonts, and graphics, can pose difficulties, "especially if graphics are saved in odd file types (PCs have real trouble with PICT files, and Macs are often slow to open PC metafiles) If you really get involved in artwork—Photoshop /Illustrator-type stuff—I have a feeling that file exchange gets more quirky. But then, the graphics on PCs are still so poor that you really would not want to work on a PC anyway!"

Denise concluded, "Given that nearly all of the replies were from very satisfied and enthusiastic Mac users who had little or no problems working with clients using PCs, and remembering earlier years editing happily on a Mac compared with recent horrors with PCs, I am encouraged to make the Mac my next computer purchase. I know I'll have support from BELS members (everyone offered help with any future questions I might have) and it seems that enough Mac user groups and on-line support are available if I need it"



Symbol Searching in Microsoft Word Bobbie Reitt asked, "How does one search a Word file using 'Find and Replace' to locate a symbol (eg, a Greek character like the alpha or beta, or a mathematical operator like the plus-or-minus sign)? I find that it's difficult but not impossible to insert a symbol in the 'Find What?' box (by copying it from file text-one apparently cannot just key it in directly using 'Insert'), but what's worse, that even when that's accomplished, Word cannot then find the durned [sic] thing on a 'Find Next' command. It seems to be blind to symbols from the symbol sets accessed via the insert function." She continued, "As most of you surely know, effective cleanup of files from numerous authors to make certain that symbols like these have been preserved correctly in conversions and to make certain that they are used consistently depends on the ability to search for and sometimes replace ... reliably." She closed her query with, "I would be very grateful for help from Word wizards among my BELS colleagues."

After hearing from a number of people,

Bobbie wrote, "The gist of the responses was that Word falters here because the same symbol in different fonts is seen not as 1 particular character, but a lot of different ones, and also because simply entering the symbols into the search and replace dialogue boxes is not accomplished in a straightforward manner-if at all (depending somewhat on the symbol in question)." The respondents suggested a variety of workarounds, sometimes available on Web sites, such as Jack Lyon's Editorium (< http://www.editorium.com >), which addresses symbol searching in Word in some of its back issues, and < http://www.mvps.org/word /FAQs/MacrosVBA/FindReplaceSymbols.htm >. One respondent even provided a downloadable macro from Microsoft. After trying it, Bobbie advised, "The macro indeed allows one to search for symbols, but each symbol searched is tied to its font, and the program tends to be blind to the same symbol in a different font from that specified in the search (although, so far, I've found even this behavior to be inconsistent). If you want to download the macro, go to < http://office. microsoft.com/downloads/2000/supmacros.as px >. Be sure to print out the installation instructions that appear on the screen before you download the file-you'll need them." Bobbie continued, "I'm glad to have the macro at hand, but I suspect that I will not be able to use it much to solve the current problem, since it assumes that I know in advance of searching a file BOTH what all the nonkeyboard symbols in the file are AND which font each one is in, a major fallacy, since the point of searching, in part, may be to discover this information. As many of us have learned, a Times Roman file can be filled with scattered nonkeyboard characters inserted from the Symbol or Arial fonts, because that's where the author or secretary found them, or it may even contain cobbled-together symbols (eg, underlining the greater-than sign to obtain an equal-to-or-greater-than sign). Not to mention what happens when a file has been converted into Word from another word-processing program. (Hardly bears thinking about! I'm not going there.)"

"In short," Bobbie commented, "I believe that what's needed on Word's Special search list is a new option analogous to the 'Any digit' one, one that would search for 'Any nonkeyboard symbol.' Too bad it's not there. The other thing that's needed is the ability to key directly into the search and replace boxes the very same characters from the various character sets that one can key into the text of the file,

using the same keystrokes." Bobbie tried other workarounds for accomplishing the latter—cutting and pasting, copying from the Character Map utility (you may find yours under Programs, Accessories in Windows), keying in the ASCII character code directly with the Alt button and the code number if you know it, etc, but, she states, "I have found these to be inadequate, either because they don't work, don't work for all symbols, or require too many keystrokes and too much assembling of arcane information. The idea, after all, is to use the computer to save time, not make a chore harder."

Among the responses, it was particularly interesting to hear from Mark Goodwin about the approach finally taken by his employer to solve this problem. Bobbie wrote, "Their 'monster macro' (as I've dubbed it) sounds terrific, but such an approach makes sense only when the problem looms in bulk, as it would with a staff of 30 facing thousands of files to clean up every year. For the lone freelance, like me, facing only tens of MSS, the old-fashioned approach of reading the printout to spot problems and then fixing them one by one manually (or using the nifty macro, when appropriate) seems the only choice at the moment."

And a few more words about the aforementioned Editorium site: Bobbie recommends that, "those who are struggling with the fine points of Word go to Jack Lyon's Editorium site and explore its rich resources (back issues of his newsletter, sundry shareware programs very useful to editors, and the ability to subscribe to his free newsletter service). BELS member Tamia Karpeles alerted me to Jack's site, and, like her, I've found him to be very helpful in his responses to my individual questions"

Finally, Bobbie was very eloquent in her appreciation of the advice received, stating, "You all have helped me learn a lot as I struggle to bend Microsoft Word to my will!"

Web Site Copyright

To "set the stage" for her question, Jennifer Macke advised, "I write scientific content for a 'group effort' Web site. . . . This is a purely philanthropic effort, not a paid job. At the moment, the 'home page' of the Web site says 'copyright Jane Doe,' Jane being the founder and webmaster of the Web site. There are numerous pages of content, written by various authors, and each author's name appears on

each page they wrote (but without a copyright symbol)." Jennifer continued, "we . . . do not want to see it ripped off (as it already has been-we occasionally find our stuff turning up on other Web sites without credit)" Jennifer wanted to know whether her work is covered by a copyright even if a statement does not appear on the page she wrote. She elaborated, "Should each article have a copyright notice ascribing copyright to the individual author? Is my content (listing me as author, but without [a] copyright sign) actually the intellectual property of Jane Doe, as things are now written?" She also wondered whether it would be advisable for "the home page [to] say 'copyright Name of Site' rather than 'copyright Jane Doe.' We are not an official organization of any kind, so would this make any kind of sense?" Jennifer continued, "Are there problems down the road that we need to look out for?"

Jennifer received the following useful replies: Nancy McGuire wrote, "I work for the American Chemical Society's publications division, and I deal with our copyright folks on a regular basis. Disclaimer: I am NOT a lawyer, so this is only what I have run into in my work situation, not official legal advice." She continued, "Here's the deal: If you write something that can be defined as original content, you automatically own the copyright, whether you say so or not. You can put your ownership on a more solid legal footing by paying a fee to register your copyright (and get the little c-in-a-circle), but putting 'copyright **year, name**' or something similar on your article is sufficient for informal stuff." Nancy later suggested, "Having your webmaster's copyright notice automatically on the bottom of every page, with a stated penalty for infringement, fuzzies things up considerably. Did you explicitly turn over ownership to her? If you were planning to use your material later, you might have to get her permission. But if you didn't explicitly give her this right, she shouldn't be claiming it. Better to have [the webmaster] claim rights to the site itself, but not the material therein. (Yow. Did I just say 'therein'? I'm really not a lawyer, but I'm starting to sound like one!)"

Bobbie Reitt advised, "any intellectual property belongs to its creator starting at the time of its creation, by common law in the United States (and lasts until many years after the creator's death). One owns those rights regardless of the presence of any copyright statements. The statements serve the purpose of making it easier to prove one's case, should there be a legal contest over the matter. The failure to make the copyright statement does NOT constitute forfeiture of one's rights. The presence of the statement may serve as a deterrent to theft and plagiarism, but obviously there's no guarantee-everyone knows that the copyright police are not kicking down people's doors in the middle of the night!" She continued, "you need to decide among yourselves who wants to be the owner of which rights, then attach the appropriate statements of copyright ownership to the pieces-or to the whole, if that's the wish of everyone in the group." Bobbie concluded, "I don't know why the attachment of a statement of copyright ownership on your Web site would be a problem in the future-unless someone in the group plagiarized his or her contribution!"

Training in Proofreading

Jennifer Macke sent a second query to the mailing list, this time for a friend, a medical researcher, who employs a person to do his word processing. This employee "understands much of the scientific substance of what she works on. But she has no skill at proofreading, so her documents look sloppy. She does not seem to notice basic details, such as lack of a period, or 2 spaces between words, or lowercase/uppercase errors, etc." Jennifer continued, "where would one best get this kind of training? She is a bit overqualified to be taking a secretarial class. Are proofreading classes easy to find? Does anyone know of any good workbooks that one could use for self-teaching these skills?"

She received 20 responses, which fit into the following categories:

- Recommending books: 6
- Recommending classes: 9
- Recommending classes given at AMWA meetings: 4
- Recommending the use of an outside editor: 3
- ♦ Other comments: 5

(The numbers of respondents do not add up because many made more than one suggestion.)

Jennifer elaborated on these recommendations: She advised that the specific book recommendations were Substance and Style: Instruction and Practice in Copyediting by Mary Stoughton, Mark My Words. Instruction & Practice in Proofreading by Peggy Smith, Letter Perfect by Peggy Smith, and The Practical Stylist by Sheridan Baker. Jennifer commented that 6 respondents recommended classes taught by EEI (Arlington, VA), 6 respondents suggested classes at other institutions (eg, local colleges and the Office of Personnel Management of the federal government), and two suggested on-line courses (offered by EEI or Copyeditor.com). However, no one stated that they had taken an on-line course.

Jennifer closed by noting that the most frequent 'other comment' was that it would be nearly impossible to teach the employee in question to be a good proofreader. She quoted Cheryl Wilder, who noted, "What you want to do likely cannot be done. Detailed attention to language forms very early in life or not at all. Teaching someone to see linguistic anomalies is about like trying to teach a pig to sing: You can't do it and it only annoys the pig. Enjoy this employee's other fine qualities and put her unique skills to work in an area that lets her apply her strengths, not be reminded daily of her blind spots."



0-Oh (Uh-oh!), the Details of Cell Line Names (NSO or NSO?)

Annie Almstedt asked for help in determining what was being referred to when both the terms "NSO" (upper case "oh") and "NSO" (zero) were used throughout the manuscript she was editing. (The authors were referring to a myeloma cell line, which they were getting to "inducibly express" a kinase inhibitor.)

Annie received many responses, and it soon became clear that NSO and NSO are both the names of mouse cell lines. For example, Jennifer Macke suggested using PubMed, the National Library of Medicine's on-line biomedical literature database (< http://www. ncbi.nlm.nih.gov/entrez >). Jennifer advised Annie to search PubMed on each term and "look at some abstracts that mention the word and see which ones have the correct context " Well, when Annie did that, "NSO gave me 293 hits . . . , and NS0 gave me 42 . . . I still couldn't determine what my authors really meant " Catherine Judge Allen searched under "NS0 cells NSO cells" on the Google search engine (< http://

www.google.com >) and got a number of hits, including < http://www.biotech. ist. unige.it/ cldb/spe129.html >, which provides a list of cell lines from BALB/c mice. Catherine advised, "Scroll down the list, and you'll find that NSO and NSO are indeed 2 different things" For Annie's sake, I'm glad that neither term was so obscure that it didn't show up at all in these searches, which might have caused her to assume, possibly erroneously, that the other (cited) term was the one the author intended.

Annie concluded, "So, with all this help, what did I end up doing? Well, I ran out of time and had to make a decision before racing to the FedEx drop. I decided to use that editorial instinct that 'perhaps they paid more attention to the title when they typed it' " After noting that the title used NSO (zero), Annie continued, "I asked the compositor to set all those O's as zeroes. And when I received a reply from the author the next day, I was very happy to see that my guess was the right one. Whew!"

Last Licks

Susan Eastwood wrote, "Dr. Brent Cochran, from the Department of Physiology at Tufts University School of Medicine, asked me to bring the Acromed Biomedical Acronym Database Server to your attention." AcroMed is a computer-generated database of more than 120,000 biomedical acronyms and their associated long forms. You can access AcroMed and find out more about it at < http://medstract.org >. AcroMed is a part of the Medstract Project, which was established to apply natural language processing technologies to the extraction of knowledge from biomedical texts; Medstract is a collaboration between computational linguists at Brandeis University and biologists at Tufts University School of Medicine and is supported by the National Library of Medicine.

Fine Print

(1) The opinions in this column belong to the people cited and not necessarily to BELS or any employer. (2) If a BELS member not already on our mailing list would like his or her e-mail address added, please contact the BELS webmaster at < Webmaster @bels.org >. Please provide your name and the e-mail address at which you would like to receive BELS mail. You must be an active, ie, dues-paying, member to participate in the mailing list, and you can always have your e-mail address removed if you decide not to participate in the future. (3) I will conclude by noting that this column is for all of us in BELS! If you have any comments or questions, please send me an e-mail at < BSchwedel@aol.com >.



BELS Certification Examination Schedule

Date	City & Association	Registration Deadline
	2002	
May 4	San Diego, CA, CSE	April 13
October 29	San Diego, CA, AMWA	October 8
	2003	
March	San Francisco, CA (Asilomar)	TBA
May 3	Pittsburgh, PA, CSE	April 12
June 8	Bath, England, EASE	May 16
September 17	Miami, FL, AMWA	August 27

Please note: The deadline for registration is 3 weeks before the scheduled date of the examination. Please remember that the US mails are, in some cases, being delayed due to the current anthrax scare. Be sure to allow sufficient time for the application and registration process if you use the US mails. International mails may also take longer than usual.

For more information, write Registrar, BELS, c/o Leslie E. Neistadt, Hughston Sports Medicine Foundation, Inc. 6262 Veterans Parkway, Columbus, GA 31909, USA. Phone: (706) 576-3322, Fax: (706) 576-3348, e-mail: neistadt@hughston.com