PERSONAL INJURY CASES are never simple. No matter how garden-variety the case may seem to be from the legal standpoint, it involves something very complex: the science and mechanics of the human body. Whether the case involves a back injury resulting from a car accident or a medical malpractice issue stemming from alleged negligence in the operating room or a failure to diagnose, litigators have long understood that the key to winning these cases is to give the factfinder a firm grasp of the medical issues. Almost every conceivable form of demonstrative evidence has been used to accomplish this end. The old standby exhibits have included anatomical models, graphs of lost earnings, hospital charts, diagrams, photographs of the injured plaintiff, or day-in-the-life videotapes. Michael K. Loucks, Litigation and New Technology: Can the Two Effectively Mesh? 41 Boston B.J. 10, 24 (May/June 1997). These ex-

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hibits all have their limitations, but all can be effective. “[E]ffective demonstrative evidence appeals directly to jurors’ life experiences and helps jurors understand cases. Lawyers recognize that people grasp and retain ideas better when they are conveyed through images as well as words.” Rodney Jew and Martin Q. Peterson, Envisioning Persuasion: Painting the Picture for the Jury, 31 Trial 74, 76 (Oct. 1995).

Computer technology has made it possible to get even greater effectiveness out of demonstrative evidence. From a plaintiff’s perspective, the multimedia medical trial allows jurors to see, hear, feel, and understand the terminology, physiology, and anatomy involved in the personal injury case. This article will explore how you can use computer technology to make sure that the jurors remember in the deliberation room what you prove in the courtroom.

USING TECHNOLOGY TO ENHANCE DEMONSTRATIVE EVIDENCE • The whole point in using demonstrative evidence is to communicate complex information to the jurors in a way that they will both comprehend and remember. Computers, with their tremendous capacity for the storage and manipulation of information, are ideal tools for getting the best from your demonstrative evidence.

Models, Graphs, Charts, and Diagrams

Visual or demonstrative evidence is no longer limited to hand-drawn models, graphs, charts, or diagrams. Successful plaintiffs’ attorneys in medical negligence cases incorporate computer-generated images into their visual strategy when presenting a case to the jury. A computer-savvy attorney might use a desktop publishing program to create models, graphs, charts, or diagrams for use in the courtroom. Thomas J. Vesper, Cost Control for the Minor-Injury Auto Case, 36 Trial 64 (Feb. 2000).

Historically, demonstrative evidence was presented on foam poster boards. Today, it can be projected from a notebook computer; viewed by the judge, jury, witnesses and counsel from multiple monitors placed within the courtroom; or presented through a large screen video projection system. A video writer might enable the lawyer or witness to illustrate the graphics by electronically drawing visual cues such as an arrow or circle on the presentation. If properly done, visual cues can act as signposts to inform jurors of what is important on the exhibit.

Medical Chronologies

Amazingly, some attorneys place little importance on medical chronologies. A properly constructed chronology navigates the judge and jury through a complex trial. A chronology might depict a medical or surgical history; physical, occupational, or speech therapy sessions; or highlight the various stages of recovery. Use of a chronology can emphasize the medical or surgical history of a plaintiff who has had excruciating pain for several months.

For example, in a recent case I took to verdict involving the failure to diagnose colon cancer, a chronology was used to demonstrate a series of complaints which we alleged were consistent with the diagnosis of colon cancer. The jury was able to see a documented pattern of complaints to the doctor. It supported our theory that a reasonably prudent doctor would have and should have recognized that the complaints by the patient were consistent with colon cancer.

The Appeal of Chronologies: Simplicity

Exit interviews conducted with jury members from various trials revealed that the appeal of medical chronologies rested in their simplicity. These chronologies are, in effect, life preservers that rescue jurors from drowning in hours of witness testimony or struggling to decipher illegible doctor or hospital records. Al-
though jurors today are becoming increasingly sophisticated, simplicity can, and does, work.

**Electronic or Digitized Photographs**

“Trial lawyers are rarely devotees of Confucius. But, like the Chinese sage, they know as well as anyone that a picture is worth at least a thousand words.” Eli Chernow, *Video In The Courtroom: More Than a Talking Head*, 15 Litigation 3 (Fall 1988); John Bartlett, *Bartlett’s Familiar Quotations* 132 (Emily Morison Beck ed. 15th ed. 1980) (relating Chinese proverb).

**Generally Admissible**

Federal Rule of Evidence 403 grants the trial court broad discretionary power over the admission of all types of evidence, including demonstrative evidence, documents, and testimony. The text of Rule 403 allows relevant evidence to be excluded “only if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading to the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence.” Fed. R. Evid. §403.

Electronic/digitized photographs are admissible to demonstrate the extent of the plaintiff’s injuries when the probative value is not substantially outweighed by their prejudicial effect. It is a rarity for a photograph’s probative value to be outweighed by its prejudicial effects. Photographs are an effective way to compare and contrast the plaintiff’s pre-injury condition and lifestyle with their post-injury state.

**Using the Digitized Photographs**

Electronic or digitized photographs tell the client’s story in simple, compelling images that have the power to persuade. These photographs are images captured on compact discs rather than on light sensitive film. The easily accessible images may be viewed on monitors located within the courtroom.

For example, to show the devastating effects of a plaintiff’s face and head injury, you could show pre- and post-injury photos of the plaintiff’s face (in side-by-side frontal views). To thematically link these images and drive home the reason for their contrasting appearance, you could place between them an image that digitally reconstructs the extensive injury to the plaintiff’s skull. To emphasize the bleak reality of the change, you must present these three juxtaposed images exclusively in black and white. See Jew & Peterson, *supra*

As another example, you can convert tissue slides (perhaps from an autopsy) into digitized photographs that assert the mechanism of death as interpreted by the testifying pathologist. Richard D. Lawrence & Jill Gustafson, *Missing the Beat: Failure To Diagnose Heart Attack Cases*, 32 Trial 24 (Sept. 1996).

**Medical Devices, Tools, and Instruments**

Another effective demonstrative tool is to show the jury the medical device, tool, or instrument used in the procedure at issue. Use these instruments early and often. If possible, use them during opening statements (depending on the law in the particular jurisdiction or consent of opposing counsel), direct examination of plaintiff’s treating physicians and expert witnesses, cross-examination of the defendant doctor and defendant’s expert witness, and closing arguments. At a minimum, seeing the medical device, tool, or instrument makes the jury realize the severity, intrusiveness, and margin of error associated with the procedure. It also stresses the control the defendant doctor exerted during the surgical procedure that caused the plaintiff’s injury.

For example, if the case involves a specific instrument or surgical procedure, explain the procedure using three dimensional images and graphics; define medical terms using labeled schematics; present a videotape or computer.
Videotape or Computer-Generated Animation of Surgical Procedure

During trial, it is beneficial to show a videotape or computer-generated animation of the surgical procedure at issue. The expert should walk the jury through the procedure by describing what the surgeon is doing at each stage of the surgery. This technique is highly effective because it allows the jury to see the surgery and the expected outcome. Jurors feel as though they were present in the surgical suite, viewing the procedure through the eyes of the surgeon. The result: an understanding of the events leading up to the alleged breach of the standard of care.

A videotape of a complicated surgery performed on a plaintiff can be a convincing tool in illustrating to a jury the seriousness of an injury that might not be understood by testimony alone. In *Barry v. Owens-Corning Fiberglass Corporation*, 668 N.E. 2d 8 (Ill. App. Ct. 1996), the First District Appellate Court held it was not error to allow the jury to see a videotape of a thorascopy procedure performed on the plaintiff. There, a thoracic surgeon performed a diagnostic procedure to determine the cause of the plaintiff’s shortness of breath. The physician testified at trial and used the videotape as a demonstrative tool to explain the procedure and the observations that led him to conclude that the plaintiff was suffering from mesothelioma. The defendant objected and argued that the videotape was irrelevant, immaterial, and cumulative. The trial court admitted the videotape and the appellate court affirmed the trial court and flatly rejected defendant’s argument and noted:

“The videotape becomes, by its nature, cumulative to the testimony, but cumulative in a good way. The goal is to help the jury understand something. … Fictional medical dramas on television regularly provide viewers with the sight of scalpels being inserted in various parts of the human anatomy. So does educational programming. No widespread public shock is discernible. … It was not error to allow the jury to see it.”

*Id.* at 11. Similarly, in *Glassman v. St. Joseph Hospital*, 631 N.E. 2d 1186 (Ill. App. Ct. 1994), an Illinois appellate court allowed an expert doctor to narrate a videotape of other surgeons performing a similar procedure to the one at issue and held the videotape illustrated the surgery better than oral testimony and/or drawings could.

Illustrative of the *Barry* decision is the Illinois appellate court decision in *People v. Crayton*, 530 N.E. 2d 651 (Ill. App. Ct. 1988). In *Crayton*, slides showing the condition of the victim’s body taken in the hospital immediately after the injury were admissible as they corroborated and helped explain the pathologist’s testimony concerning tissue damage. Similarly, a California court held that a film was admissible showing the plaintiff in a hospital with a tube down the nose, temporary tracheotomy and uncontrollable flailing arms. *Lehmuth v. Long Beach Unified School District*, 348 P.2d 887, 894 (Cal. 1960).

Specialized Software

Animated Dissection of Anatomy for Medicine (“ADAM”) is a multimedia software product that permits viewing of human anatomy from a variety of angles, views, and levels of magnification. A.D.A.M. Software, Inc., 1600 River Edge Pkwy., Ste. 700, Atlanta, GA 30328; telephone (800) 338-5954; facsimile (404) 933-9767. It allows the attorney “to animate a surgical operation or procedure on computer and