

EDITORIAL

Protect Your Data!

All too often, our office computers are disasters waiting to happen. We store huge amounts of important information on them and risk losing it all by neglecting to back up the data. No amount of casualty insurance will recoup the loss of the data on stolen or destroyed computers.

Industry statistics show that fully 10% of hard drives fail in any given year and that 43% of computer users lose one or more files every year in the form of clinical data, financial records, photos, e-mail, documents, and other important information. Recovery of lost data, when it's possible at all, can be very expensive.

Yet a Harris Interactive study last year found that 35% of Americans admitted they never back up their computers. And amazingly, many people who have lost important data in a crash still refuse to do regular backups. Why do so many of us neglect such a basic precaution? Because it's inconvenient and time-consuming. Clearly, the only way to get many people to back up their data regularly is to make the process automatic.



BY JOSEPH S. EASTERN, M.D.

Some computer companies have taken steps in that direction. Apple, for example, has a feature called Time Machine that backs up Macs to an external drive automatically. But that does you no good if, for example, a fire destroys the computers and also incinerates the backup drives.

So, the first rule is to store your backup drives in a different location from your computers. Unfortunately, that's a pain, too, and external drives can be lost or stolen, creating a HIPAA nightmare. So an increasingly popular alternative is automatic remote backup.

Several companies offer this service: two of the most popular are Mozy (www.mozy.com) and Carbonite (www.carbonite.com). (I have no financial interest in any product or service discussed here.)

The cost is very reasonable for individual computers. In fact, Mozy lets you store up to two gigabytes of data for free. Its basic package, which includes unlimited storage, costs \$4.95 a month per computer. Carbonite is a bit cheaper (\$49.95 per year, also for unlimited ca-

capacity), but Mozy is a little more customizable, and you can specify the files you want regularly backed up and when it will be done. Backing up an entire office costs more, depending on how many computers and/or servers you have, but it's still very reasonable and includes other services such as operating system and network share support.

The procedure is simple: You create an account and tell the service which files to copy. Your first backup can take a long time, often days, depending on how much data you are sending and the speed of your Internet connection. After that, the program runs in the background, copying only files that have changed since the previous backup. Files are encrypted before leaving your computer, and they remain encrypted at the service's data center, making them HIPAA compliant and, theoretically, accessible only to you.

To restore files, you open a sort of virtual representation of your backed-up files and click on what you want restored. You also can log into the Web site from any other computer and pick any file or folder to retrieve. If your computer is stolen or the hard drive is destroyed, you can go to a site to initiate a

full restore to a new computer. Remote backups might even help you recover a lost or stolen machine: If the finder or thief opens new files, they will be backed up to your new machine, which could allow you (or the police) to trace the original computer's whereabouts.

If you ever decide to terminate the service or simply want a hard copy of your data, Mozy will send you a DVD of all your files, for a fee. (Carbonite does not mention this service on its site.)

Soon, though, you might be able to use these services for a lot more than simply storing and retrieving files. Mozy's parent company, EMC, has announced a new subsidiary called Decho (www.decho.com), which it says will soon offer the same services for information that banks offer for money. Not only will you be able to store your data, you'll also be able to share it, move it around, put it to work, and access it no matter where you are. Such a centralized "information bank in the sky" could change the way we perceive and use computers. ■

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LETTERS

What Is Normal, Really?

Dr. Rhoda H. Cobin's editorial ("What Is Normal Thyroid Function?" Guest Editorial, Nov. 1, 2008, p. 10) prompts me to write. Over the past years I have diagnosed and treated hundreds of patients, particularly in pregnancy, when they demonstrate classic signs of hypothyroid disease or medical problems and have lower-than-expected thyroxine levels. I offer the following observations:

- ▶ Little attention is paid to the functional differences for thyroid assays from different companies, especially in distinguishing abnormal low values. Thyroid assays have not been standardized for pregnancy.
- ▶ Multiple studies have indicated increased preterm labor, diabetes, macrosomia, placental abruption, weight gain, fatigue, and other complications associated with low thyroid states.
- ▶ In my experience, thyroid-stimulating hormone (TSH) does not correlate with these clinical effects, and is useful only

when above the mid-normal range. Studies which obtain only the pituitary TSH do not accurately reflect thyroid function at the cellular level, only pituitary response. TSH likely identifies immune thyroiditis/primary hypothyroidism. One can find a much larger group of patients with "extrathyroidal" disease. I call this "subnormal hypothyroidism" (symptomatic, low free T_4 , normal TSH).

▶ Free T_4 (FT_4) seems to correlate with this clinical response. Although some researchers advocate using the total T_4 in pregnancy, for example, and say that the FT_4 only reflects total T_4 , I have found the FT_4 is very useful in delineating patients who improve with thyroxine supplementation.

▶ I suspect that at less than 20 weeks, FT_4 is essential for both maternal and fetal health, turbocharged by human chorionic gonadotropin. FT_4 would be a sensitive indicator for both gravida and fetus. Deficiency in FT_4 at this stage is devastating to the fetus if left untreated.

▶ After 20 weeks, total T_4 might be a more sensitive indicator than FT_4 for the fetus, since the action of D3-deiodinase to release iodine to the fetus depends on thyroxine-binding globulin-bound T_4 , which is approximated by total T_4 in pregnancy.

This process is not a steady-state equilibrium, but a dynamic rate reaction. FT_4 would still be an important indicator for maternal health after 20 weeks, as the gravida's thyroid function depends on FT_4 , not iodine level. The consequences of T_4 vs. FT_4 deficiency may vary with gestational age and whether one looks at the fetus or the gravida.

What is the downside of treating these pregnant patients with small doses of thyroxine? There are many theoretical and physiologic reasons, and also studies which support this idea. None indicate harm to the fetus or gravida from treatment during pregnancy, especially if FT_4 levels are kept within the "normal" nonpregnant range.

Timothy D. Bilash, M.D.
Del Mar, Calif.

E-Prescription for Trouble

I have been trying to use an e-prescription program, but there are several problems ("Medicare Bonus to Push E-Prescribing Beginning in 2009," Nov. 15, 2008, p. 1):

- ▶ Controlled medications cannot be issued through an electronic prescription.

- ▶ It does not save time.
- ▶ If the software costs \$2,000-\$3,000, where is the incentive to switch, since the "bonus" for switching to e-prescribing is going to be \$2,000-\$3,000?
- ▶ Not all pharmacies like e-prescriptions.
- ▶ How will records of refills be made and entered into a patient's chart?

E-Prescribing does not eliminate errors. I received six requests from the same pharmacy for a refill that I had already done. One prescription ended up at the pharmacy as 36 pills, when I prescribed 6! I refilled a prescription electronically only to find a fax for the same request the next day at my office.

We have a long way to go.

Rodger S. Orman, M.D.
San Andreas, Calif.

LETTERS

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