

News of Hamaspik Agencies and General Health

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Q GAZETTE SURVEY

The GAZETTE asks YOU: HOW OFTEN A DAY DO YOU WASH YOUR HANDS WITH SOAP AND HOT WATER? A: 0; B: 1-3; C: 4+ Respond to: survey@hamaspik.org

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HIGH-TECH DEVICES CREATE FALSE ALARMS, LAX PARENTING

🕞 🛛 HEALTH STAT

ARE PEOPLE ON FOOD STAMPS UNHEALTHIER? Diabetes mortality rate in Food Stamp non-qualifiers: 1% Diabetes mortality rate in people getting Food Stamps: 3.04% Source: Study, Friedman School, Tufts University

🟺 🕴 HEALTH QUOTE

CAUTION IS ABSOLUTELY NEEDED, BUT BEING CAUTIOUS DOES NOT MEAN PROHIBITION."

-Bioethicist Prof. Alta Charo on an NAS expert panel report that genetically modifying techniques to stop diseases could be allowed under certain criteria, Feb. 14, Medscape

1. HEALTH TIP

WALK THIS WAY

Daily walks are great for your health, heart and all, but pavements will give your joints a pounding—so hit the dirt! Walk the soft, uneven fields and trails of local parks instead.

PUBLIC POLICY NEWS

A SHOCKING DISCOVERY?

WITH THEIR 98-PERCENT SUCCESS RATE IN CORRECTING DEADLY ABNORMAL HEARTBEATS, IMPLANTABLE CARDIOVERTER DEFIBRILLATORS (ICDS) LIKE THIS ONE ARE OVERWHELMINGLY SAFE AND WIDELY EMBEDDED IN MAINSTREAM MEDICINE. BUT A NEW STUDY BY BOSTON'S BAIM INSTITUTE FOR CLINICAL RESEARCH NOW FINDS THAT 38 PERCENT OF ICD ELECTRIC SHOCKS TO PATIENTS' HEARTS ARE UNNECESSARY—ALSO FINDING THAT SHOCK EVENTS, MEDICALLY NEEDED OR NOT, COST THOUSANDS IN RESULTING PATIENT MEDICAL CARE. THE STUDY WAS PUBLISHED FEB. 14 IN THE JOURNAL CIRCULATION: CARDIOVASCULAR QUALITY AND OUTCOMES.



● ► HAMASPIK NEWS

With Everything Happening, Hamaspik Staff Happen to Perform Like It's Nothing

AUDIT, RESIDENT'S RUSH SURGERY, PARENTS OVERSEAS: A DAY AT SEVEN SPRINGS

When it rains, it pours.

But at Hamaspik, they have good strong umbrellas.

It was Wednesday morning, Feb. 1. And it was enough that the Seven Springs Shvesterheim, a Hamaspik of Orange County group home, was in the midst of a two-day unannounced audit.

That inspection by three officials with the New York State Office for People With Developmental Disabilities (OPWDD), though later passing with no negative findings and the usual words of praise, was cause enough for pressure.

Manager Mrs. Neuman and her professional team were "caught in the act" of providing 'roundthe-clock family-like support for the home's residents, from morning hairdressing to evening dinner.

But in terms of precipitation analogy, in light of what was about to transpire over the next 48 hours, the unexpected visit was at worst a spring shower.

FORECAST: UNPREDICTABLE

The audit had actually begun the night before, when auditors first showed up to observe Seven Springs' evening dinner/bedtime routines. As ex-CONTINUED ON PAGE 04 >>

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Services Provided by NYSHA AGENCIES

OPWDD

COMMUNITY HABILITATION Providing: A personal worker to work on daily living skill goals

HOME BASED RESPITE Providing: Relief for parents of special needs individuals

AFTER SCHOOL RESPITE Providing: A respite program for after school hours and school vacations

DAY HAB PROGRAM Providing: A day program for adults with special needs SUPPLEMENTAL DAY HAB PROGRAM Providing: an extended day program for adults

with special needs
CAMP NESHOMAH

Providing: A day program for children with special needs during summer and winter school breaks

INDIVIDUAL RESIDENTIAL ALTERNATIVE (IRA)

Providing: A supervised residence for individuals who need out-of-home placement

Providing: Apartments and supports for individuals who can live independently

ENVIRONMENTAL MODIFICATION Providing: Home modifications for special needs individuals

SUPPORTED EMPLOYMENT

Providing: Support and job coaching for individuals with disabilities to be employed and to maintain employment

ENHANCED SUPPORTED EMPLOYMENT *Providing: Job developing and coaching for people with any type of disability*

MEDICAID SERVICE COORDINATION *Providing: An advocate for the individual to access and coordinate available benefits*

HOME FAMILY CARE

Providing: A family to care for an individual with special needs

INTERMEDIATE CARE FACILITY Providing: A facility for individuals who are medically involved and developmentally delayed

IBS Providing: Intensive Behavior Services

PLAN OF CARE SUPPORT SERVICES Providing: Support for families of individuals with special needs

FAMILY SUPPORT SERVICES

Providing: Reimbursement for out of ordinary expenses for items or services not covered by Medicaid

PARENTAL RETREATS Providing: Getaways and retreats for parents of special needs individuals

SELF DIRECTION

Fiscal Intermediary (FI) — providing: accounting and billing for vendors that support individuals who self-direct their own supports

Broker — providing: one-on-one, independent brokering of all necessary services and supports to individuals who self-direct their own supports

DOH

CARE AT HOME Providing: Nursing · Personal care aide · Therapy · Respite · Medical supplies · Adaptive technology

• Service coordination

Providing: Multidisciplinary and supplemental Evaluations · Home and community based services · Center based services · Parent/ child groups · Ongoing service coordination · Physical therapy · Occupational therapy · Speech therapy · Special education · Nutrition · Social work · Family training · Vision services · Bilingual providers · Play therapy · Family counseling

NURSING HOME TRANSITION AND DIVERSION WAIVER PROGRAM

(NHTD) Providing: Service Coordination · Assistive technology · Moving assistance · Community transitional services · Home community support services · E·Mods · Independent living skills · Positive behavioral interventions · Structured day program

TRAUMATIC BRAIN INJURY

Providing: Service Coordination · Independent living skills training · Day programs · Rent subsidy · Medical equipment · E·Mods · Transportation · Community transmittal services · Home community support services

CHILD & ADULT CARE FOOD PROGRAM Providing: Breakfast · Lunch · Supper · Snack HEALTH HOME SERVING CHILDREN

(HHSC) Providing: Intensive, comprehensive care management and family/community support services for children with chronic condition(s) and/ or mental health issues at greater risk for relapse and/or lack of care

SENIOR DINING/SOCIAL DAY PROGRAM (SHNOIS CHAIM)

Providing: Daily onsite lunches and social/ educational activities for community seniors (Orange County only)

APPLIED BEHAVIOR ANALYSIS (ABA) Providing: behavior modification for children with autism covered by private insurance

LHCSA - HAMASPIKCARE

PERSONAL CARE & SUPPORT SERVICES Providing: Home Health Aides • Homemakers • Personal Care Aides • Housekeepers • HCSS aides COUNSELING SERVICES

Providing: Dietician/Nutrition counselors · Social Workers REHABILITATION SERVICES

Providing: Physical therapy · Speech therapy · Occupational therapy · individuals

PACE-CDPAS Providing: Personal care aides for people in need SOCIAL AND ENVIRONMENTAL SUPPORTS Providing: Minor maintenance for qualified

SOCIAL MODEL Providing: A social day program for senior patients NURSING SERVICES

Providing: Skilled observation and assessment · Care planning · paraprofessional supervision · clinical monitoring and coordination · Medication management · physician · ordered nursing intervention and skill treatments

HAMASPIK CHOICE

A Managed Long Term Care Plan (MLTCP) approved by New York State

HCR

ACCESS TO HOME Providing: Home modifications for people with physical disabilities

DESTOR

RESTORE Providing: Emergency house repairs for senior citizens

HOME REHABILITATION PROGRAM

Providing: Remodeling dilapidated homes for low income home owners

NYSED

VOCATIONAL REHABILITATION SERVICES Providing: Employment planning · Job development · Job placement

JOB COACHING

Intensive and ongoing support for individuals with physical, mental and/ or developmental disabilities to become employed and to maintain employment

NYSHA

ARTICLE 16 CLINIC Providing: Physical therapy · Occupational therapy · Speech therapy · Psychology · Social work · Psychiatry · Nursing · Nutrition

TRAINING

Providing: SCIP · CPR & first aid · Orientation · MSC CORE · AMAP · Annual Updates · Com·Hab/Respite · Family Care training · Supportive Employment

CENTRAL INTAKE

Providing: The first contact for a person or family in need of Hamaspik services

HAMASPIK GAZETTE Providing: A bilingual monthly newspaper informing the community of available Hamaspik services

ОМН

HEALTH AND RECOVERY PLAN (HARP) Providing: long-term social, emotional,

employment, peer-support and other mental-illness recovery supports ● ► PUBLIC POLICY NEWS

At Albany Hearing, Felder Urges De Blasio on Three-Year IEPs

STATE SENATOR CALLS ON NYC MAYOR TO STREAMLINE SPECIAL-NEEDS SERVICES FOR FAMILIES

At a hearing before state lawmakers in Albany on January 30, New York City Mayor Bill de Blasio was once again urged by State Sen. Simcha Felder (D-17th Dist.) to finally implement the long-promised three-year Individualized Educational Plans (IEPs).

An IEP is a detailed, multi-page document containing all pertinent medical, developmental and academic information on students with any disabilities or special needs.

The document, crafted after an initial number of detailed and painstaking professional evaluations, is vital to any New York State or City public- or private-school student obtaining any special-education services.

Said services range from regular physical, occupational and/or speech-language therapy sessions at school to more involved services, including placement in full-day programs, or even in special-education or disability-oriented non-public schools, if demonstrably warranted.

By current regulation, New York City parents of students with IEPs, often children with significant intellectual and/or physical disabilities, must renew their children's IEPs at the start of each school year.

But because the annual renewal is a burdensome study in tediousness and bureau-

● ► HEALTH NEWS

cracy, parents have long requested that IEPs require renewal only once every three years.

Especially, as Sen. Felder buttonholed de Blasio at the hearing, when said children have unchanging diagnoses and conditions—and hence unchanging schooling needs whose IEPs should not need yearly updates, either.

"You testified here on May 4, 2016 before the Education Committee and made a commitment at the time to parents of special-needs children to finally implement, before the start of this school year, 3-year IEPs for special-needs students that require no changes to their IEPs," Felder pressed. "That never occurred."

"And children and families are still suffering humiliation and financial hardship to maintain their IEPs by having to pay lawyers over and over and over again," he went on, "despite the fact that there are no [diagnostic] changes [to the IEP]."

"The example I gave last time was... a child [who] has Down syndrome, autism," Felder said. "There's no fix for that, unfortunately, and there's no need to force them to do it over and over again."

The longstanding public champion of children with disabilities ended on an upbeat note.

"Thank you for strides and improvements that you made," he said to the Mayor, "but that doesn't give me or anyone else a pass on doing what we have to do to help these families, so I sincerely hope that New Yorkers can count on your commitments in 2017. Let's start fresh."

New Biomedical System Detects "Yes/No" Thoughts in Totally Paralyzed People

SYSTEM "READS" LOCKED-IN HEALTHY MINDS, ENABLES MINIMAL COMMUNICATION

Using widely-used existing biomedical technology, a European research team was recently able to virtually read the minds of four patients with advanced ALS who could not talk or move at all—a condition known as locked-in syndrome—allowing them effectively communicate with loved ones, some for the first time in years.

The still-experimental system uses an EEG cap worn on the patients' heads and

a near-infrared spectroscope (NIRS), both common systems in medicine today.

Electroencephalography (EEG) is normally used to read electrical activity in the brain. Near-infrared spectroscopy (NIRS) is normally used to measure levels of oxygen in the blood.

The brain's electrical activity and blood oxygen levels are distinctly different when a person thinks "yes" or "no." Based on that fact, researchers were able to detect distinctly different patterns in the patients' brains when they asked them four simple "yes/no" questions.

The youngest of the four, a 23-year-old $\label{eq:continued} {\sf CONTINUED} \mbox{ ON PAGE 9 } >>$

HAMASPIK NEWS

Hamaspik "Day Habber" Sruly, 25, "Stars" in Small-screen Modern Telling of Classic Talmudic Tale

HIGH-END HOME VIDEO A TRIUMPHANT LABOR OF LOVE FOR GENTLEMAN, SUPPORT STAFFER

This is not another home video—anything but.

It's not meant for public consumption. But as far as the personally-produced videos flooding modern society by the billions go, this one practically leaps off the screen.

Armed with little more than a storebought consumer camera and endless imagination, a Hamaspik Direct Support Professional (DSP) proved himself a most promising disciple of the modern art form that is the motion picture.

That's because, in the course of two months of time, he scripted, directed, shot, edited and produced a competitive homemade film—self-manufacturing props, scouting and shooting a handful of outdoor scenes, presiding over the requisite endless takes, and so much more.

The end result was a production evidencing the endless hours of work, and all volunteered, put into making the difference between spontaneous video-recording and serious planning.

THE ORIGINAL FISH STORY

Starring Sruly in its lead role, the home movie recounts the true story, recorded in the Talmud, of Yosef, a man who would literally spend his last penny to honor Shabbos.

Yosef, the story goes, was known down at the docks as the man who'd pay any price to buy the freshest, largest catch to grace his Shabbos table each week.

At the same time the fish weren't biting, leaving local fishermen with nothing selling, Yosef's neurotic billionaire neighbor consults an astrologer, who tells him that poor Yosef will end up with all his wealth. The man sells everything he owns, buys an impossibly expensive precious stone, sews it into his hat and flees.

But the hat, perhaps predictably, is gone with the wind.

Falling into the sea, it's swallowed, baseball-sized diamond and all, by a huge fish and you can guess the rest: The fishermen land a seriously big one, no one wants to buy it, and someone says, "Try Yosef!" Yosef spends himself silly and brings the fish back home, where a distraught wife frets over Shabbos spending habits that currently have the family literally living in the poorhouse until the fish is filleted.

The story ends with Yosef buying his wife a mansion's worth of appreciation. Needless to say, he never had to worry about bills again.

SUPPORTING (AN) ACTOR

Sruly, who has autism, has a "moiredig" memory, says Day Habilitation Director Pinchos Knopfler, using the Yiddish word for "awesome" or "frightful."

"He can tell you exactly where we went on a trip three years ago," he adds, "and exactly which week and which day."

Maximizing that memory for maximum personal growth, Sruly found himself in fall of 2016 reviewing lines for the movie's first scenes—lines that his DSP had painstakingly and precisely scripted, and which they repeatedly reviewed until the budding actor had them down pat.

With his first lines committed to memory, shooting began.

The movie's first scene depicts a village marketplace of old—with vendors noisily hawking their wares from booths, calling loudly for customers to approach tables laden with goods like fresh fruits and vegetables, wine and, of course, fish. Sruly's Yosef, in colorful robe and oversized hat, goes from booth to booth making his weekly rounds, haggling over prices and paying with cash.

Over the dozen or so following scenes, all showing signs of exacting, professional-grade editing, Yosef comes to life—enjoying his family dinner with the calm of total faith on Shabbos, trying during the week to figure out how to pay for the next Shabbos, praying, and even going to the airport to pick up a Shabbos guest from Manchester, England (who manages to miss his flight).

The film closes with Yosef triumphantly returning to the same "CASH FOR GOLD" pawn shop where, mere days earlier, he traded in the household's treasured silver candlesticks for a few bucks with which to buy Shabbos. Viewers are shown an incredulous proprietor (played by the DSP's young son) forking over piles of cash for a gem more expensive than anything he's ever bought or sold in his life.

At the end of the movie, Sruly's Yosef shows his family their palatial new residence—"played" by one of Monsey's finest real-life (and really big) homes. The credits then roll.

REAPING THE REWARDS

The film debuted in late January at the

Hamaspik of Rockland County Men's Day Hab facility in Spring Valley.

Gathered in the multi-purpose room were several dozen gentlemen and their support staff. Seated in the front row was Sruly. The lights were dimmed. The drop-

down projector screen against one wall lit up. The audience was rapt.

And 45 minutes later, Sruly was a star.

Both DSPs and the gentlemen they support suddenly saw a different man before them. With a crowd suddenly surrounding him, Sruly found himself being congratulated from all sides for his role and for his accomplishment.

Throughout the entire prolonged process, Sruly's DSP never accepted "good enough" as good enough. With people who have autism often having difficulty expressing emotion or even knowing what emotions are, the patient DSP slowly and carefully coached Sruly on how to put feeling and emotion into his delivery.

The difference before and after, says Mr. Knopfler, was subtle—but noticeable to his experienced eye. There was a change there—and a positive one.

And when Sruly's moment in the limelight finally came, something came to the surface, the long-time Day Hab Director reports.

"When he watched himself," he says, "you saw that he felt a little proud."

And if "habilitation" means anything, it surely means that.

● ► PUBLIC POLICY NEWS

Experimental Ebola Vaccine 100% Successful

Hearteningly good public-health news for the world came earlier this month, as a Feb. 10 report in *The Lancet* declared that an experimental new Ebola vaccine now completely protects people from the killer virus.

"While these compelling results come too late for those who lost their lives during West Africa's Ebola epidemic, they show that when the next Ebola outbreak hits, we will not be defenseless," said Dr. Marie-Paule Kieny of the World Health Organization (WHO), who led the trial.

It's not a surprise—researchers had been working on an Ebola vaccine for years but because the virus only usually caused occasional, small outbreaks, it was hard to test it. Additionally, no governments or compa-

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Published and Copyrighted Feb. '17 by: NYSHA, Inc. 58 Rt. 59, Suite 1, Monsey, NY 10952 Distributed free. USPS Presorted Non-profit Mail Postmaster: Return service requested © All Rights Reserved nies had invested the time or money needed to develop a vaccine.

Then the epidemic started in Guinea, Sierra Leone and Liberia in late 2013.

By the time it was completely stopped earlier this year, it had infected 28,000 people and killed over 11,000.

Researchers rushed several vaccines into production.

The vaccine in question was developed by the Public Health Agency of Canada, which licensed it to a company called NewLink Genetics. Pharma giant Merck & Co. bought the license and is making it.

It uses an animal virus called vesicular stomatitis virus (VSV). The virus is harmless to people. Vaccine makers genetically engineered it to carry a little piece of Ebola DNA to stimulate an immune response.

The trial was stopped when it became clear that the vaccine was truly protecting people from infection, even after they'd been in direct contact with an Ebola victim.

The Food and Drug Administration (FDA) gave the vaccine breakthrough designation to allow quick licensing.

The Vaccine Alliance, an international group, has made a \$5 million down payment to Merck to make sure the vaccine is available when it's next needed. Merck has promised to make 300,000 doses of the vaccine available for emergency use.

"Ebola left a devastating legacy in our country," said Dr Kelta Sakoba, coordinator of the Ebola response in Guinea. "We are proud that we have been able to contribute to developing a vaccine that will prevent other nations from enduring what we endured,"

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HAMASPIK NEWS

With Everything Happening, Hamaspik Staff Happen to Perform Like It's Nothing

AUDIT, RESIDENT'S RUSH SURGERY, PARENTS OVERSEAS: A DAY AT THE SEVEN SPRINGS IRA

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pected, nothing was amiss. Auditors even joined the individuals at the dinner table, chatting and otherwise keeping them company as they ate.

For the audit's Day Two, the officials had returned promptly at 6:30 a.m., first personally witnessing (and commenting on) the loving, motherly and professional support provided by live-in staffer Mrs. Grossberg and her fellow Direct Support Professionals (DSPs). Also on hand to answer any questions was Solomon Gelb, Hamaspik of Orange County's diligent Assistant Residential Services Manager.

But then, as the audit's second day was winding down, there came a proactive mid-morning call from Mrs. Niederman, Manager of Hamaspik of Orange County's Day Hab women's division. Mrs. Niederman notified her fellow Manager that one Seven Springs resident, a Day Hab regular, was "not feeling well." Though easily justifiable, especially in the middle of an involved audit, the Manager put caution over convenience and opted to not wait for a next-day doctor appointment. That was also despite the fact that two other residents, and their one-on-one staffers, were already out of the house at routine doctor appointments.

Later the afternoon of Wednesday, Feb. 1, then, accompanied by a DSP, the resident was seen at a local clinic for what at the moment seemed to be gastrointestinal upset.

Two red-flag symptoms prompted the doctor to immediately suspect appendicitis.

A few moments later, Mrs. Neuman got an urgent call from her DSP. The doctor wanted x-rays done, and now. And the rainstorm got under way.

The young woman was immediately transported to Orange Regional Hospital's emergency room for those images—which shortly confirmed the doctor's suspicions of appendicitis. Considering the internal inflammation, the ER team called for immediate surgery—a call that might not have happened without the Seven Springs Manager's compassionate foresight.

But while at the ER before being officially admitted as a patient, the Seven Springs resident underwent preliminary medical care over the following late-night and early-a.m. hours, including x-rays and an MRI scan—throughout which Seven Springs DSP Mrs. Drezner stood by her side.

Though being at her own home all that time, Mrs. Neuman had been on call all night.

As such, the Manager was informed by Mrs. Drezner at 4:00 a.m. Thursday morning that the patient had been admitted to the hospital for acute appendicitis. That emergency appendectomy was scheduled to take place at 10:00 a.m. (which only began hours later—do read on).

With that update, the Manager called a knowledgeable community medical activist in the wee hours of the morning on whether to proceed with the surgeon on call or scramble for an even better one. But as it turned out, that specific surgeon happened to be a highly-recommended recent retiree who was substituting at Orange Regional that very night (well, early morning). The Hamaspik patient stayed on.

But as night faded to early daylight, the storm was just picking up speed.

WEATHERING THE STORM

Under OPWDD regulations governing group-home operations, Hamaspik keeps parental consent forms on file at all times.

These forms, signed annually by biological parents, specify that the agency's registered nurses (or other officers, if necessary) may make therapeutic, dental, medical and even surgical decisions on behalf of supported individuals in the event of emergencies.

However, hospitals like Orange Regional will typically request an additional layer of non-OPWDD-required consent in such situations, asking for direct parental awareness and involvement despite their previous signing of standard agency consent forms.

As such, while the on-site signature of IRA Nurse Mrs. Shira Kaplan, R.N., Seven Springs' official nurse was enough under OPWDD rules to authorize the emergency surgery, Seven Springs staff also needed verbal consent from the resident's biological parents before Orange Regional would roll her into the operating room.

It was now 7:30 a.m. the morning of Thursday, Feb. 2 and Mrs. Neuman was back on the phone. She tried calling the patient's biological parents. (On top of that, another Seven Springs resident was moderately under the weather, and Mrs. Neuman simultaneously directed staff via telephone in tending to her as well.)

But no one was home—and at the perfectly worst time.

Thinking quickly, Mrs. Neuman called siblings and other family members of the parents—but with the same results. As it turned out, virtually the entire extended family had traveled overseas for a family event, and father and mother could not be reached when they were most needed.

Joel Weiser, Hamaspik of Orange County's Director of Residential Services, stepped in to assist.

Mr. Weiser immediately worked the phones for some rapid information-getting—not only shortly learning where the girl's parents were, but getting their direct number, too.

Mr. Weiser swiftly passed that contact information to Mrs. Neuman, who called right away. One can only imagine how startled the parents were to have been tracked down overseas!

But they were grateful—and only too happy to grant direct consent for their precious daughter to undergo emergency surgery.

By that time, it was well past noon at the hospital. With consent cleared, surgery was set to begin—when the next storm of crisis erupted.

Upstate and Upscale, Acquiring a Taste for the Finer Things in Life

HAMASPIK DISCOVERS WORLD OF WINE AT KOSHER VINTNER'S TASTING ROOM

The sylvan hills of rural Sullivan County are the perfect setting for a wine tasting room.

Not unlike the bucolic fields of California's legendary wine country, the rustic landscape of upstate New York—home to the famous Finger Lakes, the Empire State's own wine country—is the backdrop to a good few vintners, more than a few of them competitive. And a good few of those kosher, too.

And on January 19, Hamaspik visited one of them.

Comprising a full production facility, barrels and all, the complex also features the on-site and elegantly-appointed tasting room that is all but de rigueur at such facilities nowadays.

The wood-paneled wine-aficionado welcome room received a group of visitors as nuanced and individual as its contents: the gentlemen of Hamaspik of Orange County's Day Habilitation (Day Hab) program.

Arriving at noon, the dozen-plus young men spent a good 45 minutes imbibing the basics of wine in every way but literally.

Accompanied by Direct Support Professionals (DSPs) Yisroel Fulop, Yoel Jacobowitz, Mendel Klein, and Shea Teitelbaum, the young men and their support staff were veritably awed.

Asked what the group learned about wine that they didn't previously know, Mr. Jacobowitz cites the sheer variety of vintage lining the walls.

Between spending some time scrutinizing the range of labels on display (with several gentlemen recognizing several favored by their own fathers back home) and taking in an informative mini-documentary on the winemaking process from vine to retailers' shelves, the visitors discovered that the demanding connoisseur can shell out up to \$250 for a wine aged up to 15 years before sale.

A friendly customer service staffer kindly fielded several questions and distributed informative winemaking brochures to the fascinated guests. They even enjoyed some fine fruit of the vine—in the form of decidedly non-intoxicating grape juice. (The winery prohibits the downing of alcoholic wine on the premises; Hamaspik prohibits on-thejob employees from drinking anything alcoholic anywhere.)

One newly-informed DSP seized the opportunity to go back to his own home not just knowing the finer points of wine, but with a newly-purchased bottle of New York Muscato with which to later taste those finer points.

But having expanded the palette of those he supports in terms of a broader taste for life and the better things thereof, that's perhaps no surprise.

Does Sound Therapy Work?

The Gazette Looks at the School of Alternative Medicine and the Big Questions Beneath

"One of my clients, a girl with Down syndrome, was not able to read. Mom took her for this therapy and she started reading," read the internal Hamaspik e-mail.

"I also personally know of a close family member with ADD who was helped tremendously by doing this sound therapy... Would you write about it?"

That's how sound therapy was brought to the attention of the *Gazette* by a Hamaspik Medicaid Service Coordinator (MSC)—and as such, the *Gazette* did some research into the basic facts into this school of alternative medicine.

But first, a preface.

OVERVIEW

There are many types, philosophies, schools and treatments of alternative medicine—but they all have several general definitions in common:

1. They are not (at least not yet) scientifically proven to work.

2. They are largely considered by mainstream medicine to not work.

3. Practitioners tend to "conspiracy-theorize" that mainstream medicine doesn't want the public to know that they work.

4. They have many adherents, often friends and relatives of non-patients, who testify that they work.

5. They work for those who believe they work (and not for those who don't).

Among these are acupuncture, aromatherapy, chiropractic... and sound therapy.

WHAT EXACTLY IS SOUND THERAPY?

Sound therapy is an alternative school of medicine that believes that problems in the ear affect quite a few other problems than hearing, and that by treating the ear, quite a few other problems can be solved, too.

According to sound therapy, the ear is the body's primary sensory organ. Sound therapy believes the ear is critical not just for hearing but for the brain's overall ability to process information (primarily sound), to learn, and even to maintain body balance and posture.

In short, sound therapy is supposed to treat something called auditory processing disorder (APD), a legitimate medical diagnosis which has standard mainstream treatments other than sound therapy. (Note: "Sound therapy" can also refer to those mainstream APD treatments, which are not the subject of this article.)

Critically, sound therapy has a different view than mainstream medicine of what the ear (and its several parts) actually does—and hence, approaches the ear differently, using a wide range of techniques to correct what it sees as problems resulting from defects in the ear system.

Sound therapy is referred to by mainstream medicine as *auditory integration training* (AIT).

Sound therapy was invented in the 1950s by

French physician Dr. Alfred A. Tomatis (1920-2001), an otolaryngologist (ear, nose and throat doctor).

After first working with opera singers and their hearing and voice problems, Dr. Tomatis came to believe that problems in the ear, even in utero, led to voice and communication problems later in life. He also came to believe that, with various treatments and devices that he invented, patients could be treated for a range of hearing and speech problems, and even for seemingly unrelated problems like schizophrenia and autism.

Dr. Tomatis is widely considered the father of AIT.

However, the field of AIT evolved during and after his lifetime, with several distinct AIT schools and treatment disciplines (and sub-disciplines) now in existence. These include:

- The Tomatis method
- The Berard method
- The Clark method
- Digital Auditory Aerobics (DAA)
- EnListen
- Earobics
- Human BioAcoustics
- The Solisten Training Program
- Tree of Sound Enhancement Therapy
- The Fast ForWord Series

Auditory integration training is also part of an increasingly popular field of alternative therapies known as "brain training." The concept of AIT is that auditory processing issues stem from oversensitivity or under-sensitivity to sound (or certain sound frequencies), which then interferes with learning.

In short, AIT consists of patients listening to sessions of specific sounds tailored for their specific problems. The therapy often consists of ten 30-minute listening sessions, two per day.

DOES SOUND THERAPY WORK?

Ah, that's the big question.

And the answer—as is the case with pretty much every form of alternative medicine—depends on who you ask.

But for better or worse, the consensus of the medical establishment to this day is that there is no scientific proof that AIT works.

A brief inquiry for available lay resources at the National Institute on Deafness and Other Communication Disorders (NIDCD), one of the 27 divisions of the National Institutes of Health (NIH), found that the NIDCD had no official information on AIT.

For its part, the private-sector American Speech-Hearing-Language Association (ASHA), the country's largest group of trained mainstream professionals in the specialty, typically does not take positions on alternative treatment methods, techniques and programs.

In 2004, however, ASHA made an exception with regards to AIT, issuing a cautious official position:

"AIT has not met scientific standards for effica-

cy that would justify its practice by audiologists and speech-language pathologists. However, well-designed, institutionally approved, research protocols designed to assess the efficacy of AIT are encouraged. It is recommended that this position be reexamined should scientific, controlled studies supporting AIT's effectiveness and safety become available."

Later, in 2011, a systematic review related to autism and spoken language from the ASHA evidence maps concluded that "In the absence of evidence, the treatment [i.e., auditory integration therapy (AIT) and other sound therapies] must be considered experimental and care must be taken not to risk hearing loss." (Risk of hearing loss is due to the fact that AIT sounds are played to patients at volumes considered to be unsafe by mainstream hearing medicine.)

The review also warned parents about AIT's costs, and urged that any future research into the scientific validity of AIT as a treatment for autism spectrum disorder (ASD) "build on existing evidence and provide high level evidence about whether this treatment is effective."

Speaking of scientific validity, it is worth noting that Dr. Tomatis himself was banned for life from the French Medical Council in 1977 and convicted in 1990 of "illegal practice of medicine."

Additionally, a common device used in sound therapy in France, the Audiokinetron, is banned from U.S. usage by the FDA as a medical treatment device. (However, it, or equivalent device, is legally permissible for usage as an educational treatment device.)

So, back to the big question: does sound therapy work?

Fact 1: There's no shortage of honest, positive testimony by patients and their parents alike that sound therapy works (or at least that positive results occurred after AIT).

Fact 2: Modern mainstream medicine does not consider it scientifically proven, and therefore does not approve of sound therapy.

Now the question is two-fold: "If it *doesn't* work, then why did my friend/sister/brother/aunt/cousin/ co-worker say that it does? And if it *does* work, why does mainstream medicine say that it doesn't?"

That question takes us right back to the bigger issue of mainstream vs. alternative medicine as laid out at the start of this article—a subject beyond the focus of this article.

In the meantime, facts are facts.

On the one hand, the *Gazette* does not want to scare anyone away from AIT, especially if the fact is that they (or people they trust and respect) report positive real results.

On the other hand, the fact is that AIT has not been scientifically proven in proper clinical trials to work. "So what do I do?"

Well, other than your homework, what to do is up to you.

Facts are facts...

PUBLIC POLICY NEWS

DiNapoli "Consequences": New York's Drinking Water Infrastructure Needs Fixing

According to a comprehensive new report issued Feb. 13 by State Comptroller Thomas P. DiNapoli, New York's water systems may require nearly \$40 billion in repairs and improvements over the next two decades.

"Many drinking water systems in New York are over 100 years old and operating far beyond their useful life," DiNapoli said. "Too many places are dealing with water main breaks, leaks, contaminated drinking water and other problems that can result in public health threats, property damage or inconvenience for residents and businesses. New York needs to significantly invest in this area, or we're going to suffer the consequences."

Recent high profile water system failures and problems in places such as Hoosick Falls, Syracuse and Newburgh are the latest signs of the need to spend more on water delivery systems, the Comptroller noted. In New York, it generally falls to cities, villages, towns and a few counties to operate and fund the systems that supply residents and businesses with water. It is paid for primarily from fees and property taxes. In addition, water authorities and private water companies also provide these services in several communities. The state and federal government regulate public water systems, but also provide some funding for improvements.

Mr. DiNapoli's report highlighted several areas that need attention and resources, including contamination of water systems that can cause public health emergencies and can come with a large price tag.

Water contamination can originate from industrial sites as well as from inadequate treatment, improper separation of sewage, and agricultural and storm water runoff. Aging pipes or other structural problems can



E-mail us at: info@reliablebrokerage.com Visit us on the web at: www.ReliableBrokerage.com cause corrosion of materials that can release lead into drinking water.

Audits by the Comptroller's Office have identified municipal water systems that experienced excessive water loss, in some cases exceeding 50 percent, which is likely coming from undetected deterioration, breaks or other malfunctions in the water distribution system.

The report recommended that local officials prepare for the challenges ahead by developing and maintaining multiyear financial

● ► HEALTH NEWS

and capital plans; establishing legal capital reserve funds when appropriate; and keeping taxpayers informed about system needs and options for paying for them—including federal and state resources.

Setting and managing water user rates to meet system expenses is also central to the financial stability of water services.

In 2015, 939 local governments reported collecting a total of \$1.1 billion in water fund revenue.

Most of this revenue was spent on the day-to-day operation of the water systems, including routine maintenance.

New York's 27 local water authorities reported \$4.6 billion in revenues, with New York City's water system accounting for \$4 billion of those revenues.

The largest water suppliers outside of New York City are the Suffolk County Water Authority, the Monroe County Water Authority and the Erie County Water Authority.

Pediatricians Reject New Smartphone Baby Monitors

With the rise of the now-ubiquitous smartphones, and a growing army of apppaired devices wirelessly linked to smartphones (including all sorts of personal health monitors), are a new class of smartphone baby monitors a good idea?

No, according to Dr. Christopher Bonafide of the Children's Hospital of Philadelphia (CHOP).

In an editorial published recently in the Journal of the American Medical Association (JAMA), Dr. Bonafide warned that repeated false alarms from the monitors jangle parents' nerves and lead to unnecessary rushes to emergency rooms with unnecessary and expensive tests—including X-rays and blood tests—performed on babies.

False alarms can occur if babies set off the monitor by kicking or rolling, or experience a harmless change in their vitals that the device reads as life-threatening, Bonafide said.

For example, he said, research has shown that babies occasionally experience sudden declines in their blood oxygen levels that would set off a monitor. "They're just normal fluctuations," Bonafide said, adding that the alarm would have parents think otherwise.

The pricey devices consist of electronic sensors embedded in baby "smart" socks, onesies, and even clothing buttons. When worn by babies, they continually check vital signs like breathing, pulse rate and oxygen levels, alerting parents of any abnormalities via smartphone app.

HIGH-TECH DEVICES CREATE FALSE ALARMS, LAX PARENTING

But because they are not directly marketed as preventing medical crises, they are technically not medical devices—and hence not subject to FDA oversight and approval.

As such, besides lacking FDA safety and efficacy approval, there's no evidence that the devices actually prevent any potentially serious problems in normal infants, according to Bonafide.

The American Academy of Pediatrics (AAP) also recommends against using the high-tech baby monitors in healthy infants, primarily out of concern that there's no evidence they work.

Conversely, the AAP is also concerned that parents "will become complacent" upon using smartphone baby monitors, said Rachel Moon, M.D., who chairs the AAP's Task Force on sudden infant death syndrome (SIDS).

"If they have a monitor," she said, "They might feel they can put their baby on its belly to sleep, or sleep with their baby"—practices both considered unsafe by the AAP.

Bottom line? Speak to the baby expert you trust most (besides your own mother): your child's pediatrician.

And do what time and tradition have proven to best work in knowing if something's really wrong: listen to that parent's heart of your own, It's smarter than any smartphone will ever be.

Community-leading Hamaspik Senior Program Tapped by JFS to Help Holocaust Survivors

Shnois Chaim Dining/Social Day Program Staff Trauma-Trained by Jewish Family Service of Orange County

The secret of Hamaspik's success is several-fold, actually—and constant staff training is one of the several big parts of it.

Driving for the greatest levels of excellence and professionalism since its 1986 founding, Hamaspik has meticulously maintained its ongoing vision of boasting the best possible employees—by regularly "upgrading" them with ever-new skills and competencies.

In that vein, Hamaspik boasts several training coordinators across its multiple divisions; their full-time duties involve coordinating all required—and optionaltrainings for staff.

That's why Shnois Chaim recently was trained in PCTI.

A group of seven staff members at Shnois Chaim, Hamaspik of Orange County's dining/social day program for seniors, were trained this past January 17 in using the PCTI (Person Centered Trauma Informed) Approach to meet the needs of Holocaust survivors.

The training session, which lasted several hours, was presented by Elise Gold, LMSW, Executive Director of the Jewish Family Service (JFS) of Orange County, one of Hamaspik's many non-profit partners.

The event, which began at 9:30 a.m., was held in the elegant Hamaspik Terrace social hall on the premises of Hamaspik of Orange County's administrative building at the gateway to Kiryas Joel.

Hamaspik's professional senior support staff came away even more professional after learning first-hand what "Trauma Informed" means and how it is delivered and otherwise applied.

The training was apropos, what with close to half of the venerable community elders attending Shnois Chaim being survivors of Nazi Germany's organized genocide efforts against European Jews.

The Shnois Chaim ("Years of Life" or "Living Years") program, under the capable management of coordinator Mrs. Landau, is Hamaspik's partnership with the Senior Dining Program run by the Orange County Office for the Aging (OFA), a division of the Orange County Dept. of Health. Mrs. Landau and OFA Director Ann Marie Maglione, and the programs they head, have enjoyed a mutually beneficial relationship from the get-go.

For its part, having had a positive and mutually supportive relationship with Hamaspik for some time now, the JFS has been able to expand its reach into the surprisingly sizable Jewish population of the largely suburban and rural upstate Orange County region.

And now, having presented PCTI-based Holocaust survivor support to staff at Shnois Chaim, the JFS has reached a leading segment of the Orange County Jewish community—by partnering with a leading agency servicing that community.

With Everything Happening, Hamaspik Staff Happen to Perform Like It's Nothing

<< CONTINUED FROM PAGE 4

Seven Springs' highly trained DSPs were called upon to deploy their finest direct-support skills under highly trying circumstances—as the young patient, overwhelmed by the surroundings and adversity of the situation, locked herself in a room and refused to emerge, causing quite the scene.

But the Hamaspik team rose to the occasion—strongly impressing on-call nurses and hospital staff with a 30-minute textbook display of the OPWDD's strict adverse-behavior rules in action, not to mention Hamaspik's sincere and abundant love and concern for the people it supports.

With eminent patience, the warmest of words and the gentlest of reassurances, and with astonished surgeons and RNs looking on, Nurse Kaplan and DSP Ms. Schonbrun professionally and delicately coaxed the scared young lady out of hiding and into their caring and loving arms, from which she shortly passed into surgery without protest.

Agreeably adapting to the circumstances, hospital staff worked as a team with the Hamaspik contingent, even agreeing to the patient's insistence that all pockets be emptied to prove they were carrying no surgical cutting tools, further allaying her fears.

Hospital OR staff also agreed to a fellow professional's request—and, at Nurse Kaplan's behest, Ms. Schonbrun soon found herself fully dressed and prepped in sanitary protection, including face mask and shoe covers, so that their patient would feel supported and calm on the operating table until the anesthetic kicked in.

It was thus around 3:00 p.m. when surgery finally began.

Several hours later, the young lady's emergency surgery was a complete success (thank God!)—with patient, out-of-town parents, staff and medical professionals alike grateful that the problem had been caught in time.

And the downpour largely came to an end.

By that evening, the Hamaspik resident was alert and oriented in a recovery-room bed—and surrounded by doting Hamaspik staff, including Mrs. Kaplan, who made her feel as comfortable and safe as possible in the unfamiliar environment.

Seven Springs' hardworking nurse, for her part, had pulled a nine-hour shift on the hospital's premises, from 12:00 p.m. before the surgery through the procedure's afternoon onset and right up to 9:00 p.m. "I'm grateful to her," Manager Neuman later told the *Gazette*. "I'm thankful."

While there, the RN hadn't just discharged her duties as the home's resident medical professional, but had also supported her fellow medical professionals with patient-specific information—and evidenced the high standards of caring maintained by all Seven Springs staff and indeed, by all Hamaspik group-home staff.

"After surgery, one of the nurses that was so compassionate and caring during the whole fiasco, came over to me and told me how it's so amazing how we care for her and we're so gentle with her and take such good care of her!" Mrs. Kaplan later reported in an e-mail.

The IRA Nurse also noted that a hospital nurse had suggested that the patient be physically removed from the room in which she had confined herself—a suggestion respectfully dismissed out of hand by Hamaspik staff, knowing as they did that it would only cause more distress. (Despite that measure being possibly warranted even under strict OPWDD behavioral response rules, there was ultimately no need for it what with Hamaspik's caring touch.)

Hamaspik's core values were further evidenced in the following rotating presence of several Seven Springs DSPs.

Under official OPWDD guidance, staff with any disability-support agency like Hamaspik need not remain on the premises once a patient with disability is officially admitted at a hospital. With the patient's direct care (and Medicaid billing thereof) now handed off to the hospital's professionals, non-profits may step back, having done their job.

But, points out Hamaspik of Orange County Executive Director Moses Wertheimer, that's anything but the case at Hamaspik.

"It's Hamaspik's responsibility to care for and support our residents, especially when parents cannot or will not show up and we've done that," he says. "We go the extra mile doing extra bedside shifts when our individuals are in the hospital, even though Medicaid doesn't reimburse us for that. In many cases, we are the only family they have."

As such, beginning at 9:00 p.m., the residential DSPs replaced the IRA Nurse at their beloved patient's bedside, staying at Orange Regional all Thursday night and Friday morning. They remained with the Hamaspik resident until her 12:00 p.m. Friday discharge—and went well above and beyond the call of duty without so much as batting an eyelash.

BACK TO OUTSTANDINGLY NORMAL

By the time Friday night rolled in, the Seven Springs resident was back home.

It was Shabbos. The house was clean. The floors were shiny. The table was set. The silverware was gleaming. And seated around the dinner table, residents shone in their Shabbos best, smiles glowing. Everything was as it normally was—happy, serene, and blissfully ordinary.

The scene was as storybook-normal as it had been the Wednesday morning on which, a mere two days earlier, a trio of OPWDD delegates walked in: residents laughing, living life, and loving each other as staff stood by in the background, providing the most tactful and well-trained person-centered supports—the very scene of one big happy and healthy family.

A cynic may have thought, "That's all fine and good when everything's fine. Let's see what it looks like when everything happens all at once!"

Had he walked in a day earlier, he sure would have found out.

Happening In health Today

ECZEMA OR NOT, FLU VAX SHOULD BE MUSCLE-INJECTED: STUDY

A study of 336 people compared flu immunity of people who got the flu shot injected deep into muscle tissue with people who had it injected just under the skin.

Just over 200 participants had the common skin condition eczema, with the remainder not.

A month later, the study found that 47 percent of those who had received an injection into the muscle—eczema or not—had developed protection against the strain of flu targeted by the vaccine. By contrast, only 11 percent of those who received an injection in the skin did.

The study was originally intended to find out which form of flu shot is better for people with eczema, the most common chronic skin disease in the U.S., affecting over 15 percent of children. The condition also persists into adulthood for about half of them.

The cracked, dry skin of eczema patients is often colonized by Staphylococcus bacteria, and for a number of reasons, the presence of staph in the skin seems to dampen the immune response to the flu vaccine—if the shot is given into the skin.

As such, people with eczema should especially get the intramuscular, not intradermal, flu shot, researchers at Denver's National Jewish Hospital now say.

The study was published in the Journal of Allergy and Clinical Immunology.

CONCUSSION SYMPTOMS PER-SIST LONGER

People who suffer concussions should probably wait longer before getting back behind the wheel, a small University of Georgia study suggests.

The study tested 14 college-age participants on a driving simulator within 48 hours after they no longer felt the effects of their concussions. Despite feeling like they had recovered from their head injuries, the patients were still likely to drive erratically. At times, their skill levels were similar to driving after drinking, according to researchers.

If not treated immediately and effectively, concussions can lead to lifelong balance and other problems. The study was published recently in the Journal of Neurotrauma.

OLDER PARENTS LOSE SLEEP OVER ADULT KIDS

A study by Penn State University (York) looked at data on 186 older couples in their late 50s with two or three adult children finding that both husbands and wives lost sleep due to worrying about supporting grown kids.

The study was published recently in *The Gerontologist*.

NEW BACK-PAIN RX: NO RX FIRST!

New recommendations for low back pain from the American College of Physicians (ACP) now say that people with the common condition should try drug-free remedies, from simple heat wraps to physical therapy, before resorting to medication.

Low back pain is among the most common reasons that Americans visit the doctor, according to the ACP's new Feb. 13 guidelines. The guidelines emphasize more than ever that powerful painkillers like OxyContin should be used only as a last resort in some cases.

Also, acetaminophen (Tylenol) is no longer recommended—with recent research finding it ineffective for low back pain, according to the ACP.

The good news, according to the ACP, is that most people with shorter-term nonspecific low back pain improve with simple measures like heat and changes in activity—with nonspecific defined as low back pain when the patient is unsure what's causing the pain, and which has been occurring for less than 12 weeks.

Such nonspecific low back pain, the ACP now says, should be given such non-drug treatments during the first 12 weeks as heat wraps, massage, acupuncture or even spinal manipulation.

If pain lasts over 12 weeks, the ACP now suggests exercise therapy; acupuncture; "mind-body" therapies like yoga, tai chi, mindfulness-based stress reduction and guided relaxation techniques; and cognitive behavioral therapy.

As for actual medication, the ACP now advises starting with ibuprofen (Advil, Mo-

trin) and naproxen (Aleve) if necessary.

The recommendations were published Feb. 13 in the Annals of Internal Medicine.

In a related study (actually a review of 12 earlier studies), a University of Maryland professor found that yoga was better for low back pain than just physical therapy or patient education.

That review was published recently in the journal *Cochrane Library*.

LASER HAIR-LOSS BASEBALL CAPS NOW FDA-APPROVED

The FDA recently approved the Capillus product, an otherwise conventional baseball cap whose inside is studded with up to 272 laser-firing diodes to treat alopecia, or hair loss.

The costly laser-technology headgear (the highest-end cap costs \$3,000) is designed to be worn three times a week for 30 minutes at a time to treat alopecia.

In related news, researchers at Scotland's University of Edinburgh analyzed genetic data from over 52,000 men and have now identified close to 300 genetic regions tied to severe hair loss.

Many of the identified genes are associated with hair structure and development. The genes could provide targets for the development of drugs to treat baldness someday, researchers said.

The findings were published Feb. 14 in the journal *PLOS Genetics*.

MAN DIES OF TOOTH INFEC-TION REACHING LUNGS

A California man died in late January after a tooth infection spread to his lungs.

Vadim Anatoliyevich, a 26-year-old long-distance trucker, left California in mid-January for New York complaining of a toothache. He stopped in Oklahoma for treatment, where a dentist cleaned an infected tooth and prescribed antibiotics.

Mr. Anatoliyevich's infection initially improved before it got worse. On the way back from New York four days later, he checked into a Utah hospital, where the bacterial infection was found to be out of control, having spread to his lungs. The man died on Jan. 30.

With regular daily and professional dental care, such infections are very rare.

STUDY PROBES BRAIN ELEC-TRIC SHOCKS FOR BULIMIA

A small study finds an association between electrical brain stimulation and reduction in bulimia. The British study of nearly 40 adults with bulimia, or overeating disorder, found that those undergoing 20-minute sessions of transcranial direct current stimulation later reported less desire to eat.

Transcranial direct current stimulation delivers a tolerable electrical charge to the brain. In this study, the stimulation targeted the brain's reward processing and self-regulation areas.

Common symptoms of bulimia include binge-eating (often large amounts of high-calorie foods, usually in secret), followed by purging to prevent weight gain. Purging may include excessive exercise or using laxatives or diuretics (water pills).

Cognitive behavioral therapy (CBT), a type of talk therapy, is the gold standard for bulimia treatment—but as many as half of patients who undergo it relapse, the study authors said.

The findings were published recently in the medical journal *PLOS One*.

PROTOTYPE NANO-MACHINE UNLOADS ANTIBIOTICS INSIDE STOMACH

University of California, San Diego (UCSD) researchers in nano-engineering, or the building of microscopic objects, have invented a prototype "submarine" that one day may deliver antibiotics and other drugs directly inside human stomachs.

The tiny device, about one-fifth the width of a human hair, is shaped like a tiny pill—and is self-propelled and carries a tiny load of antibiotics that is released into the stomach once it gets there.

The experimental micro-machine has currently only been tested on mice, where it does not seem to have produced any side effects.

Researchers invented the device as a potential way to get around a common problem in taking oral antibiotics: natural acids in the stomach can break down and deactivate antibiotics, rendering the pills largely useless.

However, the drug-delivering nano-machine contains magnesium that first reduces stomach acid. Then, once acid is neutralized, the device releases its onboard antibiotics into a stomach that now won't destroy them, keeping them from ever reaching the bloodstream.

The device isn't ready for use in humans yet, but preliminary testing in lab mice shows that it's safe and effective, at least there.

HOSPITAL NEWS

"Top" surgeons bottom performers: study

Think you're the only one noticing that some doctors are, well, uppity-up? (And that the "bigger" and more specialized the specialist, the more, well, off-putting the specialist is?)

You're not alone.

Researchers at Vanderbilt University Medical Center (VUMC) have not only found that yes, there is such a thing as a rude and disrespectful surgeon—but that the more rude and disrespectful, the more medical errors the surgeon will make.

The researchers compared surgical outcomes with patient reports of unprofes-

sional behavior by their doctors at several U.S. health systems, finding that surgeons with a history of patient complaints regarding their personalities or attitude are also likelier to err in the operating room.

Specifically, Vanderbilt research found nearly 14 percent more complications in the month after surgery among patients treated by the surgeons who also had the most complaints against them.

Complications included surgical-site infections, pneumonia, kidney conditions, stroke, heart problems, blood clots, sepsis and infections, according to the study.



KINGS COUNTY

HAMASPIK CARE:

• Hamaspik Care is seeking F/T Home Care Coordinator with good phone & computer skills. Please email your resume to: hamaspik@outlook.com or fax: 718-408-7706

ORANGE COUNTY

LOVING HOME NEEDED:

• Urgently looking for a loving home for a 16 year old girl. Preferably in Monroe. The individual is extremely high functioning, adorable, willing to please, and is mostly independent with ADLs. Please contact Shaindy Weisberger at 845-774-0314 or email sweber@ hamaspikorange.org

ROCKLAND COUNTY

LIVE-IN COUPLE IN FORSHAY BRIDERHEIM NEEDED:

• Seeking a **Heimishe couple**, with up to 1-2 children, to **live in high functioning men's group home** in Forshay. Must be **caring, sincere, and understanding**. **[Yiddish speaking]**. Please call Mrs. Fischer at 845-503-0261 and leave message.

LMSW NEEDED:

• Hamaspik NYSHA Clinic serving the special needs population is currently looking to hire a part time male social worker (LMSW) for our boys program in Monsey, Preferably Yiddish Speaking. Please submit resume to jbrecher@nyshainc.org or call 718-266-9742 ext.303 Lead author Dr. William Cooper said surgeons who are rude and disrespectful to patients might also treat other medical professionals poorly, which could affect the quality of care.

"For example, if a surgeon speaks disrespectfully to an anesthesiologist during a procedure, the anesthesiologist may become reluctant to speak up the next time the surgeon and the anesthesiologist work together," he said in a Vanderbilt news release.

"Similarly, if a nurse's reminder to perform a safety procedure such as a surgical time-out is repeatedly ignored, the nurse may be less likely to continue to share his or her concerns with the surgeon," Cooper noted.

"We need to reflect on the impact patients and families experience from these

● ► HEALTH NEWS

avoidable outcomes," said study co-author Dr. Gerald Hickson, senior vice president for quality, safety and risk prevention at VUMC. "From conservative economic estimates, the cost of addressing the excess surgical complications could amount to more than \$3 billion annually."

The findings also suggest that analyzing patient and family reports about unprofessional behavior could help spot surgeons with higher complication rates.

Hospitals could then take steps to improve the doctors' behavior and, possibly, also patient care, the researchers said.

"Even though there was only a 14 percent difference in adverse outcomes between patients cared for by the most respectful and least respectful surgeons, if you take those numbers and distribute them across the United States where 27 million surgical procedures are performed each year, that could represent more than 350,000 surgical-site infections, urinary tract infections, sepsis," said Hickson—"all kinds of things that we know can be avoided when surgical teams work well together."

The study was published Feb. 15 in the journal *JAMA Surgery*.

New Biomedical System Detects "Yes/No" Thoughts in Totally Paralyzed People

SYSTEM "READS" LOCKED-IN HEALTHY MINDS, ENABLES MINIMAL COMMUNICATION

CONTINUED FROM PAGE 2

female ALS patient who had lost all ability to move, was asked if her mother's name was Margit. The interface detected her correct answer of "yes."

Another patient was a 68-year-old woman who hadn't been able to talk for a decade. She had also been on a ventilator and a feeding tube since 2007, and unable to even blink since 2010. (Many non-verbal ALS patients use eye-tracking talking systems to spell out and speak words from a computer screen.)

The study confirms that locked-in patients can still hear and think, and do not lose brain function or awareness with disease progression, even if they can't let anyone know it.

"It is for this reason, if we could make this technique widely clinically available, it could have a huge impact on the day-today life of people with completely locked-in syndrome," lead researcher Dr. Niels Birbaumer said in a statement.

It's not much—just "yes" and "no," deciphered using EEGs and NIRS light to see where electricity and blood flow was occurring in their brains. But the patients were able to communicate, and even "answer" yes when asked by families, "Are you happy?"

"Family members of all four patients experienced substantial relief and continue to use the system," reported Dr. Birbaumer in the study, published in *PLoS Biology*.

"We were initially surprised at the positive responses when we questioned the four completely locked-in patients about their quality of life," he added. "All four had accepted artificial ventilation in order to sustain their life, when breathing became impossible; thus, in a sense, they had already chosen to live. What we observed was that as long as they received satisfactory care at home, they found their quality of life acceptable."

Amyotrophic lateral sclerosis (ALS), or Lou Gehrig's, is a terminal illness with no known cure that progressively robs the body of all movement. According to the CDC, over 12,000 people in the U.S. have ALS. Public Health

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NEW YORK SCHOOL WINS EPILEPSY GRANT

Besides being home to some of the nation's top hospitals and specialists in treating epilepsy, the brain disorder behind seizures, New York is now home to one of five global awardees of a \$21 million federal epilepsy research grant. In late January, the National Institutes of Health (NIH) awarded part of that \$21 million to New York's very own Albert Einstein College of Medicine.

MARCH: DEVELOPMENTAL DISABILITIES AWARENESS MONTH

Local, state and federal government entities will be joining dozens of local, state and national non-profits this coming March to mark the annual Developmental Disabilities Awareness Month. The yearly event sees participants reach out to communities whose loved ones they support, as well as to the public at large, to draw attention to people with developmental disabilities and to educate the public on how to best embrace, integrate and otherwise support them.

BIG INSURANCE MEGA-MERGERS FAIL

Two planned mega-mergers covered on *Gazette* #141's cover page are now officially canceled. In 2015, U.S. private health insurance giant Aetna tried buying and merging with rival giant Humana. Since then, top insurer Anthem trying acquiring Cigna.

The mergers would have reduced America's top private insurers from five to three companies.

Both deals ended up in court, with the federal and several state governments arguing, among other complaints, that the mergers would create monopolies and reduce consumer choice.

By February 2017, both multi-billion-dollar deals had been nixed by judges.

Aetna will pay Humana a \$1 billion breakup fee following their \$34 billion deal's termination, it was reported on Feb. 14. Likewise, Anthem now owes Cigna \$1.85 billion.

KIDS WITH ADHD=SIX MILLION YEARLY DOC VISITS: CDC

A late-January report by the CDC finds that kids with attention-deficit/hyperactivity disorder (ADHD) account for over six million U.S. doctor visits a year.

The report, which analyzed public-health

statistics for 2013 (the last year for which data was available), says that ADHD visits comprised six percent of all kids' doctor visits in 2013—an increase over 2003, when ADHD comprised a total of four percent.

The new study also found that eight out of ten kids' doctor visits for ADHD wound up with a prescription for such stimulants as Ritalin, Focalin and Adderall.

However, it's possible that the huge figure includes multiple visits by the same children, leading to an overestimation of visits apparently linked to ADHD drug prescriptions; kids taking ADHD drugs visit the doctor more frequently to make sure dosages are correct.

NALOXONE INJECTOR MAKER SPIKES PRICES

The Evzio device bears several critical similarities to the Epi-Pen device: both save lives, both are user-friendly for anyone to use in any emergency situation, and both revolve around auto-injector needles and medication-filled syringes.

The single key difference is that Evzio dispenses naloxone, which saves people from deadly opioid overdoses. The Epi-Pen rescues people from severe allergic reactions. But now, both are outrageously expen-

sive.

The Virginia-based Kaleo company, which makes the Evzio device, has jacked up the price for a two-pack from \$690 in 2014 to \$4,500 nowadays.

BREXIT "DIABEX-IT" NIX

Despite British voters' recent "Brexit" decision to exit the European Union, world top diabetes drug maker Novo Nordisk is investing \$145 million in a new research center in Britain.

On January 30, the Danish company said it would invest that sum over a decade in the University of Oxford-based center, which will employ 100 scientists searching for new Type 2 diabetes treatments.

The decision was welcomed by the government of Prime Minister Theresa May, who in January highlighted life sciences when she laid out a new industrial strategy designed to rebalance Britain's heavily services-based economy after it leaves the EU.

WILL NEW YORK EXPAND MEDICAL CANNABIS?

Since New York State opened its medical cannabis program a year ago, over 12,760 qualifying enrollees have benefited from the natural substance to relieve severe chronic pain where all other painkillers didn't work (or did, but with severe side effects).

Newly proposed rules would expand access to that program to thousands of additional New Yorkers, though, *Crain's Health* recently reported.

While the current rules only allow patients diagnosed with one of just ten conditions, to use medical cannabis for chronic pain, the new rules would include people with any severe pain lasting at least three months.

Medical cannabis offers an alternative to opioid drugs for treating chronic pain and gives policy makers another tool to combat the state's growing addiction crisis, according to proponents.

But only 833 New York physicians, about one percent of the state's total, are certified to prescribe the drug. And some experts point out that there are other safe approaches to treating pain besides cannabis or opioids, including acupuncture (which, by the way, is not covered by Medicare, or by New York State Medicaid), physical therapy, and meditation.

TOP DOC KNOCKS OX(YCONTIN)

In pain-related news, University of Michigan Chronic Pain and Fatigue Research Center director Daniel Clauw, M.D. told *MedPage Today* in a late-January "Doc to Doc" interview with Yale Schoof of Medicine professor Dr. F. Perry Wilson that "I haven't prescribed an opioid for chronic pain in at least a decade."

Dr. Clauw all but blames doctors—surgeons in particular—for the ongoing opioid epidemic. Surgeons "give these large prescriptions of opioids" like the popular painkillers OxyContin or Percocet "because they don't want to be called back for pain," he said. "I get that that makes your job easier."

MUMPS OUTBREAK IN WASHINGTON

A mumps outbreak in the state of Washington grew to about 290 cases in five counties, health officials reported in late January. The majority of those (160) were in Kings County, which includes Seattle.

Mumps is a viral infection spread through infected saliva. It can be prevented through the MMR vaccine, commonly given to children.

Other states to see recent spikes in mumps cases include Arkansas, Iowa, Indiana, Oklahoma, and New York.

While U.S. mumps cases are no longer very common, 2016 saw the largest number of cases nationwide in a decade. Last year, the CDC reported 5,311 mumps infections in 46 states—compared to about 1,300 cases in 2015 and just 229 in 2012.

KAISER FINED \$2.5 MILLION FOR MISSING MEDICAID DATA

On Jan. 13, California health officials fined healthcare giant Kaiser Permanente \$2.5 million for failing to turn over required data on patient care to the state's Medicaid managed care program.

The state relies on the data to help set rates, ensure adequate care is available and monitor how taxpayer dollars are being spent in the state program known as Medi-Cal.

Medi-Cal represents a small portion of Kaiser's overall business, and some industry experts said the company may have been hesitant to alter its information technology systems to meet the state's demands. According to Kaiser, its Medi-Cal program boasts about 700,000 Medi-Cal enrollees-though rival Anthem serves over one million Medi-Cal patients.

FDA: TOSS HOMEOPATHIC BELLADONNA TEETHING TABLETS

On January 28, reported CNN, the FDA urged parents to not use Hyland's homeopathic kids' teething products containing belladonna, commonly known as nightshade-a toxic substance.

Standard Homeopathic Co., the Los Angeles-based maker of Hyland's, had actually discontinued its product October 7. Some 400 reports of adverse events linked to teething products that contain belladonna were reported to the FDA since 2010.

HOW MACRA IS CHANGING MEDICARE

With the watershed Medicare Access and Summary CHIP Reauthorization Act (MAC-RA) now in effect since Jan. 1, Medicare providers must slowly shift to reimbursement based on quality and value of care provided, rather than the traditional fee-for-service reimbursement model.

The MACRA law imposes the Quality Payment Program on Medicare-participating doctors and caregivers. That program requires caregivers to use one of two new systems: the Merit-based Incentive Payment

System (MIPS) or advanced alternative payment models (Advanced APMs).

Under MIPS, caregivers must submit specific quality measures to get paid. Under Advanced APMs, caregivers receive incentive payments for high-quality and cost-effective care, but also bear some risk related to patients' outcomes.

The changes will mainly affect Medicare Part B reimbursement. Depending on what system they now use and how they report, doctors could get incentives or in some cases, penalties.

HEART ASSOC.: U.S. HEART FAILURE RISING

According to the American Heart Association (AHA)'s 2017 Heart Disease and Stroke Statistics Update, released in late January, the number of U.S. adults living with heart failure rose by approximately 800,000 between 2009 and 2014, and is projected to rise 46 percent by 2030.

DIABETES THRICE DEADLIER THAN BELIEVED: STUDY

A University of Pennsylvania review of federal national health data finds that diabetes causes 12 percent of annual U.S. deathsmaking it the third-leading cause after heart disease and cancer.

Previous studies indicated that the number was roughly four percent, according to researchers-which would mean that the actual number, if verified, is three times that.

The new study reviewed data in the yearly U.S. National Health Interview Survey (NHIS) and the U.S. National Health and Nutrition Examination Survey (NHANES). The study, published Jan. 25 in PLOS One, concluded that Americans with diabetes have about a 90 percent higher death rate than those without diabetes

According to the CDC, the number of Americans with diabetes rose nearly 300 percent between 1980 and 2014, from 5.5 million in 1980 to almost 22 million.

GOV'T PANEL NEUTRAL ON SLEEP APNEA SCREENINGS

The U.S. Preventive Services Task Force (USPSTF) commented for its first time on whether primary care doctors should screen adult patients for sleep apnea despite lack of symptoms.

The panel, an independent panel of doctors and other experts that advises the federal government on health issues, has now officially taken no stand on sleep apnea screenings.

According to a Jan. 24 statement, the Task Force "reviewed the evidence on screening for obstructive sleep apnea" for its first timebut concluded that "unfortunately, right now, there is not enough evidence to know" if screening patients with no symptoms would be "beneficial."

But the American Academy of Sleep Medicine (AASM) took issue with the USPSTF stance. The AASM says people with "a high risk for obstructive sleep apnea" should be screened "even if they don't have any sleep-related symptoms."

Such risk factors, according to the AASM, include obesity, congestive heart failure, treatment-resistant high blood pressure and Type 2 diabetes.

Obstructive sleep apnea occurs when a person stops breathing many times during sleep due to temporary collapses of the airway, resulting in reduced airflow. Symptoms include excessive daytime sleepiness, snoring, fatigue, insomnia and fatigue-related concentration problems.

U.S. KIDS' SUGARY DRINK HABITS START EARLY

A new review of public health statistics concludes that almost two-thirds of boys and girls ages two to 19 drink at least one sugar-sweetened beverage daily. Sugary drinks are associated with a number of long-term health problems, including obesity, diabetes and heart disease.

The review, conducted by CDC researcher Asher Rosinger, also found that sweetened beverages account for over seven percent of total calorie intake for U.S. kids. The review looked at 2011-2014 data from the annual U.S. National Health and Nutrition Examination Survey (NHANES).

Perhaps tellingly, the study did not look at parental behaviors, and also did not include 100-percent fruit juices like orange juice or apple juice.

The report was published Jan. 26 as a U.S. National Center for Health Statistics Data Brief. ŧ

from the world of

News and developments The Autism Update from the man research and advocacy

BOOK ABOUT BRAILLE HON-ORED FOR DISABILITY STORYLINE

A new children's book about Braille, the raised-dot system that allows people with visual impairment to "read" with their fingertips, is being honored this year by the American Library Association (ALA) for focusing on the experiences of people with special needs.

The ALA's annual awards ceremony hands out the legendary Caldecott and Newbery Medals to the best in general children's literature each year.

This year, the ceremony is also including the Schneider Family Book Awards, which are designed to spotlight authors or illustrators for addressing the disability experience

This year's pick for young children is "Six Dots" by Jen Bryant and illustrated by Boris Kulikov. "Six Dots" tells the story of Louis Braille, the blind French inventor of the Braille alphabet system for people with visual impairment.

STUDY INCIDENTALLY CON-**FIRMS NO MMR-AUTISM LINK**

A recent study on autism suggests that,

among children who have higher odds of autism because an older sibling has autism, changes in the brain in early infancy may predict diagnosis at age two.

The study, published in Nature, may not be much in the way of big autism news. However, Forbes reported on the study, it does incidentally confirm that the measles-mumps-rubella (MMR) vaccine has nothing to do with autism.

In the course of the lengthy and detailed study, researchers performed high-tech MRI brain scans on the several hundred participating infants and toddlers at several points in their early lives: at age six months, 12 months, and finally at 24 months.

The study compared a number of key brain measurements among the little children at each stage among those who ultimately got autism diagnoses and those who did not.

Researchers found several changes in the brains of kids eventually diagnosed with autism spectrum disorder (ASD) that were not found in the non-diagnosed controls.

However, and in a critical finding, those changes were found to at least begin as early as six months of age. The MMR vaccine,

however, is administered to babies at age 12 months.

A critical staple of the vaccine-autism theory is that the MMR vaccine causes ASD. However, the study demonstrates that brain changes indicative of later autism diagnoses are present well before the MMR vaccine is given.

NEW DISABILITY HIRING QUO-TA SET BY/FOR FEDERAL GOV'T

In January 2017, the federal U.S. Equal Employment Opportunity Commission (EEOC) finalized a rule that will set a hiring goal for all federal agencies.

Under the new goal, the federal government plans to use affirmative action to grow the number of people with disabilities, including people with autism spectrum disorder (ASD), on its payroll.

Under the newly-finalized plan, 12 percent of the workforce that is the U.S. federal government and its hundreds of divisions and subdivisions—collectively constituting America's largest single employer-should be people with disabilities.

With that, two percent should be those with "targeted" conditions including intellectual and developmental disabilities, according to the new final rule.

What's more, the new rule requires all federal agencies to provide personal assistance services to employees who need help with eating and other basic activities during the workday.

"Increasing employment rates for individuals with disabilities is a national priority for the federal government," said EEOC Chair Jenny Yang. "These new regulations provide concrete steps and accountability mechanisms to promote employment and advancement opportunities for people with disabilities across the government."

The new hiring goals apply to all levels of federal employment. If agencies fail to meet the quotas, the EEOC said it would work with them to make improvements to their hiring and retention of those with disabilities.

Federal agencies are already required under Section 501 of the Rehabilitation Act to have affirmative action plans for hiring people with disabilities, which are subject to approval by the EEOC.

However, the new regulations will only take effect come January 2018.

In the Know

ALL ABOUT... INSOMNIA

Hamaspik thanks Mujibur Majumder, M.D., M.P.H., F.C.C.P., staff pulmonologist at Brookdale Hospital and the Suffernbased Rockland Sleep Center, for critically reviewing this article. An article about insomnia may put you to sleep. But if you have insomnia, an article so boring that you fall asleep would be a good thing. That's because insomnia (in-SAHMnee-uh) is a disorder that can make it hard to fall asleep.

It also can make it hard to stay asleep, or even make someone wake up too early and be unable to get back to sleep. People with insomnia may also feel tired when they wake up, despite having had a passable night's sleep.

Insomnia can sap not only energy levels and moods but also health, work performance and quality of life.

Now, you may be thinking something like, "*That*'s a diagnosis?! What's the big deal about not being able to fall asleep? If something is bothering you, you can't fall asleep! Big deal!"

And indeed, many adults do experience insomnia for a few days or weeks at some point in their lives—and usually as a result of something major weighing heavily on them, like stress or a traumatic personal life event.

That kind of insomnia usually goes away.

But for some people, insomnia is not a liferelated short-term problem but a long-term medical and/or mental-health problem for which there are established diagnoses and treatments.

Those kinds of insomnia can last a good few months or even more.

The National Institutes of Health (NIH) estimates that roughly 30 percent of the general population complains of sleep disruption, and approximately ten percent have associated symptoms of daytime functional impairment consistent with the diagnosis of insomnia.

But whichever insomnia you may have, you don't have to put up with sleepless nights.

DEFINITION AND SYMPTOMS >>

Insomnia is defined as difficulty falling asleep and/or or staying asleep, even when a person has the chance to do so.

There are three general types of insomnia: *acute, chronic* and *comorbid*.

Acute insomnia, as mentioned, frequently strikes adults at some point in their lives, but is defined by lasting only a few days or weeks. Acute insomnia is commonly a result of life circumstances (for example, when you can't fall asleep the night before a big test, or after hearing bad news). As such, many people may actually have experienced acute insomnia without ever getting an official diagnosis, and not that they really need to, either—acute insomnia tends to resolve without any treatment. (That's why this article won't dwell on it.)

Chronic insomnia, by contrast, is defined by disrupted sleep that occurs at least three nights per week and lasts at least three months. This long-term pattern has many causes.

Comorbid insomnia is insomnia that occurs with another condition—including mental-

health symptoms like anxiety or depression, or medical conditions like arthritis or back pain.

Whatever type, each splits further down into two subcategories: *onset* and *maintenance*. Onset insomnia means having difficulty falling asleep at the beginning of the night. Maintenance insomnia means having difficulty maintaining sleep—meaning, waking up during the night and having difficulty returning to sleep.

<u>Symptoms</u>

Regardless of what definition of insomnia one meets, the symptoms are usually the same:

- Difficulty falling asleep
- Difficulty staying asleep

• Difficulty falling back asleep after waking up at night

Waking up too early in the morning

• Dissatisfaction with sleep; unrefreshing

sleep (a.k.a. "non-restorative sleep")

- Fatigue or low energy
- Difficulty concentrating

• Irritability, aggression, impulsivity or other mood disturbances

Decreased performance at work/ school

• Increased errors or accidents; slowed reaction (esp. during driving)

• Difficulty in personal relationships, including family, friends and caregivers

DIAGNOSIS >>

So how do you distinguish a normal, passing sleep problem from a more serious form of insomnia needing medical treatment? Well, for starters, if it's not a passing problem!

If insomnia has been making it hard for you to function during the day, and the cause of your nighttime insomnia is pretty clear (stress, a family situation, a traumatic event and the like), then it should be pretty clear that as those causes are resolved, addressed or fade away, so will the insomnia. That's acute insomnia for you right there.

But if your insomnia's been carrying on for quite some time with no obvious psychological cause, then you should see your doctor to find its cause, and its treatment. You may have chronic insomnia. Diagnosing insomnia and pinpointing its specific cause(s) may include:

• Physical exams to find signs of medical problems possibly related to insomnia

• Blood tests to check for thyroid problems or other conditions possibly related to poor sleep

• Sleep habits questionnaire to determine sleep-wake pattern and level of daytime sleepiness

Keeping a sleep log for a couple of weeks; this is a simple record of daily bedtimes, wake-up times, energy levels at wake-ups, energy levels throughout the day, and so on
Sleep center testing. In many cases where the cause is unclear, a non-invasive (no needles!) test typically run overnight at a sleep center, will monitor and record a variety of body functions, including heart rate, breathing, body movements, eye movements and brain waves while you sleep. The results will help your doctor best treat your insomnia.

CAUSES >>

Chronic insomnia

Chronic insomnia is usually triggered or perpetuated by unhealthy sleep habits, unhealthy work habits, or unhealthy social behaviors, all of which disrupt sleep. Common causes include:

• Disrupting your body clock. Disruptions include: Not having a set daily wakeup and bed time, jet lag from traveling across multiple time zones, working a late or early shift, frequently changing shifts, working from home in the evenings, using screenbased personal electronics while awake in bed, naps (especially in the afternoon, regardless of how short), an uncomfortable sleep environment, eating in bed, or sleeping in late. Any of that can make it hard to unwind, make you feel preoccupied when it's bedtime, keep your brain more alert due to the light from your computer or smartphone screen, or otherwise confusing your body's clock.

• Eating too much late in the evening. Having a light snack before bedtime is alright, but eating too much may cause you to feel physically uncomfortable while lying down. Many people also experience heartburn, a backflow of acid and food from the stomach into the esophagus after eating, which may keep you awake.

• Medications for other conditions. Medications—both over-the-counter (OTC) and prescription—such as those taken for asthma, the common cold, depression, heart disease, high blood pressure, nasal allergies, pain management, thyroid disease or weight loss can interfere with sleep and otherwise cause insomnia.

Comorbid insomnia

Comorbid insomnia is usually caused by underlying medical or mental-health problems (all of which can also worsen existing cases of insomnia). These problems include:

• Aging. Insomnia becomes more common as people get older. This is largely due to changes in sleep patterns, changes in daily physical and social activity patterns, changes in health (especially pain and other sleepinterfering conditions), and increased usage of medication(s) and resulting insomnia side effects.

• Anxiety. For some adults, trouble sleeping because they feel worried or nervous can become a pattern that interferes with sleep on a regular basis. Anxiety symptoms that can lead to insomnia include getting caught up in thoughts about past events, excessive worrying about future events, feeling overwhelmed by responsibilities, or a general feeling of being revved up or overstimulated. Anxiety may be associated with onset insomnia or maintenance insomnia. In either case, the quiet and inactivity of night itself can often be what brings on stressful thoughts or even fears that keep a person awake. Additionally, when this happens for many nights (or many months), a person may begin to feel anxiousness, dread, or panic at the very thought of bedtime, because of the sleeplessness that bedtime has become. That is how anxiety and insomnia can turn into a vicious cycle.

• Depression. Depression can make it hard to sleep. Indeed, the risk of severe insomnia is much higher in patients with major depressive disorders. But insomnia itself can also cause changes in mood, and studies have shown that insomnia can also trigger or worsen depression. What's more, shifts in hormones and physiology can lead to both depression and insomnia at the same time. (In a related vein, post-traumatic stress disorder (PTSD) can cause insomnia.)

• Restless legs syndrome. This neurological condition, in which a person has an uncomfortable sensation of needing to move the legs, can lead to insomnia. Patients with restless legs syndrome typically experience worse symptoms in the later part of the day, during periods of inactivity, and in the transition from wake to sleep, which means that falling asleep and staying asleep can be difficult.

• Sleep apnea. This is another sleep disorder linked to insomnia. With sleep apnea, a person's airway becomes partially or completely obstructed during sleep, leading to pauses in breathing and a drop in oxygen levels. This causes a person to wake up briefly but repeatedly throughout the night—causing some people with sleep apnea to have insomnia.

• Chemical stimulants. Afternoon consumption of products containing stimulants like alcohol, caffeine and nicotine can keep people from falling asleep at night. (While alcohol is notoriously associated with falling asleep, it prevents deeper stages of sleep and often causes late-night awakenings.)

• Other medical conditions that can cause insomnia are: Alzheimer's; arthritis; asthma; cancer; chronic pain; diabetes; gastroesophageal reflux disease (GERD); heart disease; hyperthyroidism; low back pain; nasal/sinus allergies; and Parkinson's disease.

TREATMENT >>

How much sleep is enough varies from person to person, but most adults need seven to eight hours a night.

Treatment for insomnia depends, of course, on what kind of insomnia.

Treatment can include behavioral, psychological, medical components or some combination thereof.

Treatment begins with reviewing your health to see if any underlying medical issues or sleep disorders could be part of sleep problems. In some cases, there are simple steps that can be taken to improve sleep (see side bar).

The next step is to talk to your doctor about your particular insomnia situation, history and possible causes to decide on the best treatment plan. For the most custom-tailored plan, your doctor may also recommend an overnight stay at a sleep center, where the resident specialist will gather personal medical data needed for personalized insomnia treatment.

In the meantime, here are the most common treatments by insomnia type.

<u>Chronic insomnia</u>

Changing your sleep habits and addressing any issues that may be associated with insomnia, such as stress, medical conditions or medications, can restore restful sleep for many people. If these measures don't work, your doctor may recommend cognitive behavioral therapy, medications or both, to help improve relaxation and sleep.

<u>Comorbid insomnia</u>

By treating its underlying causes, insomnia can largely be eliminated if not significantly reduced. Treatments for comorbid insomnia include:

• Sleep restriction. This is a strict schedule of bedtimes, wake times and using your bed for sleeping only.

• Counseling. It's important to know depression (low energy, loss of interest or motivation, feelings of sadness or hopelessness) and insomnia can be linked, and one can make the other worse. The good news is that both are treatable regardless of which came first. Anxiety-driven insomnia can be treated with cognitive behavioral therapy for insomnia (CBTi).

• Relaxation training. Also known as progressive muscle relaxation, this teaches the person to systematically tense and relax muscles in different areas of the body—helping to calm the body and induce sleep. Other relaxation techniques that help many people sleep involve breathing exercises, mindfulness, meditation techniques, and guided imagery. Many people listen to audio recordings to guide them in learning these techniques. They can work to help you fall asleep and also return to sleep in the middle of the night.

• Stimulus control. This helps to build a mental association between the bedroom and sleep by limiting the type of activities allowed in the bedroom. An example of stimulus control is going to bed only when you are sleepy, and getting out of bed if you've been awake for 20 minutes or more—helping break an unhealthy association between bed and being awake.

• Light therapy. In light therapy, you sit near a special light box for a certain amount of time each day. The light from this box mimics outdoor light. Exposure to this light helps to adjust your body's 24-hour circadian rhythm. Light therapy has helped some people with insomnia.

• Medication. There are a number of drugs that help treat insomnia, a.k.a. sleep aids, including over-the-counter (OTC) and prescription medications. These include hypnotics (both benzodiazepine and non-benzodiazepine) and melatonin receptor agonists. Examples include Ambien, Edluar, Intermezzo, Lunesta, Rozerem, Sonata and Zolpimist. But sleep aids can have a number of serious side effects, including daytime grogginess, and other health problems, so it's best to use them only after consulting with your doctor.

• Alternative medicine. Although in many cases safety and effectiveness have not been proven, some people try such OTC supplements like melatonin or valerian, treatments like acupuncture, physical disciplines like yoga or tai chi, or simply meditation.

PREVENTION (AND SHABBOS!) >>

With insomnia, prevention goes hand-inhand with treatment: Not only do many of the aforementioned treatments eliminate insomnia after it becomes the problem—but also prevent insomnia before it becomes a problem.

In other words, you might be able to prevent insomnia in the first place by simply adhering to rigid bedtime and wake-up times, for example—or by keeping stress in check.

Regarding prevention, article medical reviewer Dr. Mujibur Majumder notes not using screen-based personal electronics up to two hours before bedtime, because the devices' light waves disrupt normal brain signals, resulting in the disrupted sleep known as insomnia.

In fact, Dr. Majumder reports it "quite fascinating" that in the largely Orthodox Jewish communities that he and Hamaspik serve, insomnia patients do indeed achieve restful sleep on Friday nights—as they do not interact with screen-based personal electronics at that time...

PROGNOSIS >>

That sleep is a critical part of daily life goes without saying—people spend an average of one third of their lives sleeping. Insomnia, whether chronic or comorbid, disrupts that healthy sleep.

But the good news is that most cases of insomnia can be treated.

By following a customized treatment plan provided to you by your doctor and/or a sleep specialist, including simple changes in your daily—and nightly—habits, you should, within a few weeks, be able to put insomnia to rest.

<u> The Healthy Sleep Fitness Test</u>

Healthy nightly sleep is a critical part of health. But a lot of people think that sleep problems are normal, or otherwise don't pay attention to their sleep. Don't be one of them.

Talk to your doctor about sleep. At minimum, include it in your annual check-up conversation.

Before you talk to your doctor about your sleep, do your homework: there may be things in your medical history, or current life, which are causing sleep problems that you didn't even notice. Here are some things to look for when you review your sleep habits:

- What time do you go to bed?
- What time do you wake up?
- Do you sleep alone, or with a spouse or roommate?
- Is your bedroom dark and quiet?
- Is your mattress/pillow comfortable?
- Do you nap during the day?
- Are your weekday and weekend sleep schedules different?
 Does your work schedule require you to adjust your sleep

• Does your work schedule require you to adjust your sleep at all?

• Do you have any nighttime sleep disruptions, such as young

children in the house?

Stabilizing any or all of these factors with consistent healthy habits can often eliminate insomnia.

If you have trouble sleeping...

- Be specific: is it trouble falling asleep, staying asleep, or waking up too early?
- How many times a week do you have trouble sleeping?
- What do you do when you can't sleep?
- Is there anything you've done in the past that's helped you sleep?

• How long have you been having this problem? Is it a new problem, or has it been on and off for as long as you can remember?

• Do you lie awake feeling anxious or worrying about responsibilities and tasks?

• Have you had any recent major changes or stressful circumstances in your life (change in marital status, a move, a new job, or financial troubles)?

• Do you have any medical conditions?



NATIONAL HOSPITAL STUDY FINDS SAFEGUARDS REDUCING SERIOUS CATHETER INFECTIONS

A new study by Cedars-Sinai Medical Center (Los Angeles) indicates that improved catheter safety measures in hospitals significantly reduce bloodstream infections and health care costs.

The study analyzed data on catheter-related bloodstream infections at 113 U.S. hospitals over the past decade.

To prevent serious infections, hospitals have introduced new safety procedures in recent years. These include using sterile gloves, covering catheters with antimicrobial dressings and checking catheters daily for signs of movement or infection.

On average, improved catheter safety measures reduced infections by 57 percent. They also lowered the cost of treating such infections by \$1.85 million at each hospital over three years, according to the study.

Over 60,000 primary bloodstream infections related to central venous catheters occur each year in the U.S., with about 12 percent resulting in fatalities.

The catheters, also known as central lines, are widely used in intensive care units (ICUs). They're placed in large veins in the arm, chest or neck to deliver medications, fluids or blood.

The study results were published recently in *JAMA Internal Medicine*.

NEW DRUG ZIMPLAVA MAY BE NEW WEAPON AGAINST SUPER-BUGS

A newly approved drug named Zimplava may help in U.S. hospitals' battle against Clostridium difficile—one of several potentially fatal so-called superbug infections that are a scourge in U.S. hospitals.

In two clinical trials, researchers found that the Zinplava cut the risk of a recurrent C. difficile infection by almost 40 percent.

That's important, because, according to the CDC, the gut infection commonly comes back after treatment with antibiotics around 20 percent of the time.

The infection can also make people seriously ill.

The approval was based on the findings of two trials published recently the New England Journal of Medicine.

The drug "will give us another tool in the toolbox" for fighting C. difficile infections, said Dr. Johan Bakken, former president of

Hospitals Today

the Infectious Diseases Society of America.

C. difficile sickened almost half a million Americans in 2011, according to the most recent numbers from the CDC. An estimated 29,000 of those patients died within a month. Most infections happen in the hospital, the CDC says.

In fact, C. difficile has become the most common hospital-acquired infection nationwide, Bakken pointed out.

The bacteria can contaminate hospital surfaces and equipment, and be transmitted to patients.

That's a particular threat when patients are on powerful antibiotics to treat an infection: The drugs kill not only harmful bacteria, but also the "good" bacteria that normally dwell in the gut and crowd out the bad ones.

"The antibiotics hit the innocent bystanders, and that allows C. difficile to get a stronghold," said Bakken, who wasn't involved in the Zinplava trials.

IS PATIENT ACCESS TO PER-SONAL HEALTH RECORDS THE FUTURE?

The still-ongoing introduction of electronic health records (EHRs) to doctors' offices—one of the many key innovations of the Affordable Care Act (ACA)—is changing the way primary care physicians practice medicine. The ACA offers several incentives for doctors switching to EHRs.

But will that change eventually put the pa-

tient in charge of his or her EHR?

"I have always thought the patient should be the primary user of the EHR," says David Voran, M.D.,

Commenting on health-industry website Physicians Practice, Dr. Voran opines that patients—not doctors, nurses or other professional staff—having as full and open access as possible to their own medical records, is the wave of the future.

"It did take banking nearly 20 years to figure out customers could conduct transactions as accurately as tellers. Likewise, the airline industry has dramatically reduced its operational costs but turning over flight and seat reservations to customers," Dr. Voran puts it. "I am confident medicine will get there some day."

Dr. Voran writes that he is currently "experimenting" at his job with letting nurses, administrators and other doctors manage their own EHRs.

"It's too early to tell, but the feedback from these patients is quite promising," Dr. Voran reports. "Errors in the chart are much less; some are even doing the lion's share of a visit notes both before and after the encounter, acting in many respects like a scribe for the physicians... So far there have been no untoward events, and the participants feel



GOING TO THE KALAHARI—RIGHT HERE IN THE UNITED STATES

No, they didn't go to the Kalahari Desert. (And why would anyone, never mind a Hamaspik group, want to go there?)

It wasn't a notoriously unforgiving sandy wasteland in Africa which several residents and staff of Hamaspik of Kings County's 38th St. Shvesterheim visited this past January 22-23. Instead, it was right here on the East Coast—under the sheltering roof of a Pennsylvania indoor water park, which the Individualized Residential Alternative (IRA) traveled to one fine Sunday morning.

The trip, which was planned two months in advance by hardworking 38th St. Direct Support Professional (DSP) Ms. Herman, spanned a total of two days.

Departing early the morning January 22, the Hamaspik contingent of residents and accompanying DSPs wended its way down the Tri-State Region's highways and byways en route to Pennsylvania. Once having checked into the Kahalari Resort in the Pennsylvania Poconos, the young women spent the next day enjoying the water slides and pools of the massive indoor recreation center, breaking only for the fresh lunch they had packed.

Dinner was likewise dispensed from sizable coolers filled with kosher food and drink from home one the exciting day drew to an end.

The following morning, following a hearty breakfast, the tourists had a half-day run of the park (they returned to Brooklyn that afternoon), deciding which water slides and rides to try as they made their self-chosen way about. Decked out in water-friendly shoes and reserved attire, as were a lot of other members of their community also visiting the park, the Hamaspik visitors had a blast.

Or is that a splash?



READY TO ROLL: A PORTER ROLLS SUITCASES TO ROOMS AS KALAHARI'S HAMASPIK GUESTS ARE RARING TO GO



DRINKING IT IN: 38TH'S RESIDENTS ENJOY DOUBLE-THEMED PERSONAL WATER BOTTLES COURTESY OF CARING STAFF

empowered."

So, can non-medical professionals be trusted to manage their computerized medical records—especially when they're filled with jargon? Are we headed to a patient-centered medicine future where most technicalities not directly care-related are handled by "customers"?

"On my end, I trust their records more than those patients who have relied on healthcare providers for management of their records," Dr. Voran says.

Only time will tell.

HAND-POWERED LOW-COST PA-PER CENTRIFUGE TESTS BLOOD IN UNDEVELOPED WORLD RE-GIONS

So, you're a medical professional in some Third World backwater and you need to do a blood test on your patient. But you don't have a centrifuge.

The centrifuge, which separates blood into various components by density by spinning samples at very high rates, is a staple of modern hospitals.

But what about undeveloped world regions where there is hardly any electricity, paved roads, or high-tech anything—never mind high-tech hospitals? A Stanford University biomedical engineering team recently won an NIH Director's New Innovator Award for developing and field-testing a paper centrifuge operated by hand.

The device is based on a kind of dreidel spun by pulling a string wound around its center, accelerating it to very high speed.

Prototypes of their paper centrifuge were photographed with a high-speed camera as being able to spin at up to 125,000 revolutions per minute (RPM) using only a hand pulling its string.

The team's "paperfuge," which weighs two grams and costs 20 cents, consists of disposable sealed drinking straws containing blood samples and two paper disks. Using the string, the paperfuge spins at a very high rate of centrifugal force to separate various components.

In less than two minutes, the paperfuge separates pure plasma from whole blood providing provides a reading of hematocrit, which is used to diagnose anemia.

And in 15 minutes of spinning, the paperfuge separates separate a layer known as the buffy coat. The buffy coat is used to diagnose conditions where a parasite is in the blood such as malaria and African trypanosomiasis (sleeping sickness). The Stanford team has tested the paperfuge in a community health setting in Madagascar and is now clinically validating the device.

"There are more than a billion people around the world who have no infrastructure, no roads, no electricity," said team leader Prof. Manu Prakash. "I realized that if we wanted to solve a critical problem like malaria diagnosis, we needed to design a human-powered centrifuge that costs less than a cup of coffee."

BIOTECH FIRM BUILDING NA-TIONAL BACTERIA DATABASE FOR CUSTOMIZED INFECTION BATTLES

Sometime in the hopefully near future, a doctor at a hospital anywhere in the U.S. treating a patient for the common E. coli infection will simply find the infection's specific genetic "fingerprint" in a national database—and its best-matching antibiotic.

That's the vision of ID Genomics, a Seattle-based biotechnology firm that recently received a \$3 million federal grant to further its potentially life-saving work.

Bacteria that have developed resistance to antibiotics due to their overuse is a chronic public-health crisis costing tens of thousands

HAMASPIK COORDINATES WITH OPWDD TO STREAMLINE ITS FAMILY CARE PROGRAM

Hamaspik is New York's largest non-profit provider of the Family Care program—and now, the agency's Family Care efforts in Orange and Rockland Counties not only support sizable numbers of families caring for children with special needs, but do so more efficiently, too.

As January 2017 closed, Hamaspik's Family Care offices in the Hudson Valley streamlined their operations.

The improvement was coordinated with the New York State Office for People With Developmental Disabilities (OP-WDD)—making the program run better for both organizations, and in both upstate counties.

The now-changed status quo took root several years ago with former Hamaspik of Rockland County Family Care Coordinator Elazar Klein.

During Mr. Klein's tenure, five of the Rockland County families he supported had moved at various times to Kiryas Joel in Orange County. But after Mr. Klein cleared it with the OPWDD, they stayed on as Family Care providers under Hamaspik of Rockland County.

Over that same period, two Kiryas Joel families had moved

to Rockland County—likewise remaining Hamaspik of Orange County Family Care providers though living in Monsey.

That inefficient setup had Hamaspik of Rockland County Family Care Liaison Nachmen Ciment frequently driving up to Kiryas Joel for regular family visits and other job requirements—and likewise, Hamaspik of Orange County Family Care Liaison Mendel Rosenfeld regularly dashing down to Rockland to support families under his purview but not living locally.

A few months ago, both Hamaspik divisions agreed that the families needed to simply switch Hamaspiks—Medicaid Service Coordinators (MSCs), paperwork, Liaisons and all.

And on Jan. 31, with the help of Larry Buckley, the OP-WDD's longtime top compliance officer for the Family Care program in the Hudson Valley region, and regional Habilitation Specialist Michelle Dubaldi, MSW, the administrative process to make that switch was completed.

Messrs. Ciment and Rosenfeld now have a lot less driving to do. But in supporting their Family Care providers, they remain as driven as ever.



EVERYTHING IN ITS PLACE: FAMILY CARE LIAISONS AT HAMASPIK OF ROCKLAND (L) AND ORANGE (R) NOW GIVE LOCAL FAMILIES EVEN MORE TIME

of lives each year. The company is hoping to significantly reduce that by giving doctors rapid access to information on which antibiotics work best.

The firm is using the grant to work on building up a national bacteria database. The database will function like an FBI fingerprint library and will eventually contain the precise DNA of thousands of individual strains of bacteria.

To fill its database and fine-tune it for eventual mainstream medical use, the company is working with eight major healthcare providers across the U.S., including New York's very own NYU Langone Medical Center.

So far, ID Genomics has collected samples of over 8,000 bacterial strains from those eight partners. Each is analyzed for its genetic "fingerprint" then recorded in the database.

Besides its "fingerprint library," ID Genomics also boasts testing technology that can identify a sample's precise bacterial strain in 30 minutes.

By contrast, it currently takes about three days for a lab to identify the exact bacteria causing a patient's urinary tract infection (UTI), one of the most common hospital-acquired infections (HAIs) in U.S. hospitals.

In turn, some 80 percent of UTIs are caused by E. coli—but many E. coli strains have developed resistance to various antibiotics. For example, 30 percent of E. coli strains can resist the common antibiotic Cipro.

Once active, the system will help a doctor avoid educated guesses and select a more precisely targeted antibiotic to treat a patient's hospital-acquired infection—as well as save a lot of time waiting for lab results, and even lives.

COYOTE FOLLOWS SURGEON INTO HOSPITAL

It was apparently "take your coyote to work" day the morning of Feb. 15, when a spinal surgeon accidentally let a live coyote into his hospital, ABC News recently reported.

Dr. Steve Poletti was on his way to work at the Southeastern Spine Institute in Mount Pleasant, South Carolina when the intruder snuck in. Coffee in hand, he opened the door to the building and entered—not realizing the stray wild canine had swiftly slipped in behind him before the door closed.

"I felt something brush my leg and then turned around," Poletti told ABC. "At first glance, I thought it was a dog."

The incident was caught on surveillance video, where the animal can clearly be seen. Minutes later, Poletti races out of the building with the coyote in pursuit.

"It all happened very quickly," said Poletti.

Hospital medical professionals and security staff are regularly trained in handling intruders and otherwise protecting patients and themselves from dangerous security situations—but apparently, this is a first (and hopefully a last).



News from the World of HamaspikCare and Senior Health

Fitter seniors, stronger memory retention?

A comparison study by the Boston University School of Medicine compared memory strength in physically fit young people and seniors—finding that older adults with fitter hearts and lungs had memory power closer to that of the young people than older adults with less fit hearts and lungs.

The study first tested the cardio-pulmonary health of a group of adults ages 18 to 31, then a group of adults ages 55 to 74. The study then had participants try to remember the names of strangers whose photos were shown to them. Each participant's brain was scanned by an MRI as he or she was first shown the photos with the names, then shown the photos without the names. The study results found that seniors with healthier hearts and lungs were able to remember more names of new faces than seniors with less healthy hearts and lungs, indicating a possible link.

The increased brain activity in those with higher levels of heart/lung fitness occurred in regions typically affected by age-related decline.

While the study did not prove a causeand-effect link between healthier bodies and healthier memories, researchers say it underscores the importance of regular exercise for people of all ages as they age, especially seniors. It was published recently in the journal *Cortex*.

Meditation, music may help reduce early memory loss

A study by West Virginia University found that meditating or listening to music may benefit adults with subjective cognitive decline (SCD). That condition may be associated with preclinical-stage Alzheimer's and its resulting memory loss.

The study, a randomized controlled clinical trial of 60 adults with or without SCD, found that beginner meditation or listening to music for 12 minutes a day for three months had significant benefits.

Participants were assigned to meditation or a music listening program, and asked to practice 12 minutes per day for three months, then at their discretion for three months.

Their memory and cognitive function were measured at the trial's start, and measured again at three months and six months into the study, using standardized memory questionnaires and tests.

Both groups showed significant improvements at three months in memory and cognitive performance. At six months, overall gains were maintained or improved. The benefits did not differ by age, gender, baseline cognition scores, or any other factor.

The improvements were in cognitive functioning areas most likely to be affected in preclinical and early stages of dementia, such as attention, executive function, and subjective memory function. There were also substantial gains in memory and cognition, and these were sustained or enhanced at the six-month mark.

The study was published recently in the Journal of Alzheimer's Disease.

Does lack of exercise invite dementia?

A Canadian study by the Hamilton, Ontario-based McMaster University suggests that seniors leading sedentary lifestyles are just as likely to develop dementia as senior genetically predisposed to the condition.

The study of over 1,600 adults aged 65 and older found that those with the least daily physical activity had the same statistical risk of being diagnosed with dementia as those carrying a mutation in the APOE gene, which is known to increase chances of developing dementia.

Conversely, the five-year study also found that seniors who exercised appeared to have lower odds of developing dementia than those who didn't.

But the study didn't prove that lack of exercise caused dementia risk to increase. It only found an association between the two. The study was published Jan. 10 in the Journal of Alzheimer's Disease

NEURONASCENT GRANTED PATENT FOR BRAIN-CELL TREATMENTS

Pharmaceutical firm Neuronascent was granted a U.S. patent this late January for its methods of stimulating neurogenesis and/ or inhibiting neuronal degeneration. Those terms refer to re-growing brain cells and/or slowing them down from deteriorating.

The techniques, according to Neuronascent, have potential therapeutic applications for Alzheimer's, Parkinson's, and even post-traumatic stress disorder (PTSD) and depression.

Patients of Alzheimer's disease often lose their ability to learn, remember, reason or make decisions due to loss of neurons (brain cells). According to Neuronascent, neurogenesis could be used to treat Alzheimer's if young neurons can survive long enough to produce new ones.

FOR HOME HEALTH AIDES, THERAPY OR CDPAP SERVICES, PLEASE CALL HAMASPIKCARE AT 1-855-HAMASPIK (426-2774)

WANT ALZHEIMER'S EDGE? KEEP SPEAKING YIDDISH AND ENGLISH!

A new Italian study suggests that people who speak two or more languages appear to weather the ravages of Alzheimer's disease better than people who have only mastered one language.

Scientists said that bilingual people who had Alzheimer's outperformed single-language speakers in short- and long-term memory tasks, even though scans showed more severe deterioration in brain metabolism among the bilingual participants.

The ability to speak two languages appears to provide the brain with more resilience to withstand damage from Alzheimer's, according to researchers at Vita-Salute San Raffaele University in Milan.

The researchers found that the more often a person swapped between two languages during their lifetime, the more capable their brains became of switching to alternate pathways that maintained thinking skills even as Alzheimer's damage accumulated.

Previous studies have shown that lifelong bilingualism can delay the onset of dementia by as much as five years, researchers said. But to examine that more closely, researchers performed brain scans and memory tests on 85 seniors with Alzheimer's. Among the participants, 45 spoke both German and Italian, while 40 only spoke one language. The bilingual people dramatically outscored monolingual speakers on memory tests, scoring three to eight times higher, on average.

Bilingual people achieved these scores even though scans of their brains revealed more signs of cerebral hypometabolism—a characteristic of Alzheimer's in which the brain becomes less efficient at converting glucose into energy.

The brain scans also provided a clue why this might be. People who were bilingual appeared to have better functional connectivity in frontal brain regions, which allowed them to maintain better thinking despite their Alzheimer's.

Constantly using two languages appears to make the brain work harder. During a lifetime this causes structural changes to the brain, creating a "neural reserve" that renders the bilingual brain more resistant against aging, researchers said.

Bilingualism also sets up a person for better "neural compensation," in which the brain copes with its own degeneration and loss of neurons by finding alternative pathways through which to function, researchers added.

The new study was published Jan. 30 in the Proceedings of the National Academy of Sciences.