

## What's New in Medicine

**AcrySof Restor apodized diffractive optic posterior intraocular lens**—a multifocal, permanent artificial lens. It is convex on both sides. It is folded and inserted into the eye through a tiny incision smaller than the optic diameter of the lens. After insertion, the lens gently unfolds. Also acceptable, Acrysof ReSTOR.

**ActivaScrew**—a fixation device for use with bone fractures, osteotomies, arthrodeses, bone grafts and osteochondral fractures of upper extremity, ankle and foot. It is made of a completely bioabsorbable material that degrades in vivo by hydrolysis into alpha-hydroxy acids that are metabolized by the body. The ActivaScrew gradually loses its strength but remains functional for at least 8 weeks. Bioabsorption takes place approximately within 2 years, thus eliminating the need for implant removal surgery.

**Adacel**—vaccine to prevent whooping cough in people ages 11 to 64.

**Allen Brain Atlas**—the first gene map of the brain.

**Anderson-Hynes dismembered pyeloplasty**—see *laparoscopic dismembered pyeloplasty*.

**ankle joint distraction**—surgical treatment for ankle arthritis. The surgery involves placing pins in the leg and the foot and mechanically distracting (pulling apart) the joint surfaces to allow them a chance to heal. Usually an arthroscopy of the ankle is done at the same time to remove any spurs or fragments of debris in the joint. Candidates for this surgery are patients under 60 years old.

**apodization**—a term that may be used in reference to telescope optics, lasers, and LASIK surgery. In LASIK surgery, it is a gradual reduction or blending of the diffractive step heights to distribute the appropriate amount of light to

near and distant focal points, regardless of the lighting situation, thus improving image quality while minimizing visual disturbances resulting in increased range of vision.

**ArteFill**—an injectable substance that is used to help smooth nasolabial folds around the mouth.

**Artificial Silicon Retina (ASR) microchip**—a silicon chip consisting of approximately 5,000 microscopic solar cells called “microphotodiodes” that convert light energy into electrochemical impulses. Surgically implanted behind the retina in patients with macular degeneration and retinitis pigmentosa, it enhances vision by inducing visual signals in the remaining functional cells. Powered solely by incident light, the chip is 2 mm in diameter and 25 micrometers thick, thinner than a human hair.

**Ascensia breeze 2 blood glucose monitoring system.**

**AxSYM CORE**—lab test used to detect antibodies associated with hepatitis B virus (HBV) infection.

**Baker IV capsular formation** after failed silicone gel implant augmentation.

**balloon-occluded retrograde transvenous obliteration (BRTO)**—procedure for gastric variceal bleeding.

**Barid Collamend implant.**

**Bauer bandage**—a bandage made of pure activated carbon in textile form with lower adherence to wound surfaces and deodorization properties. It is used for a variety of skin ulcers, bedsores, burns, and other wounds.

**biosurgery**—see *maggot therapy*.

**Boostrix**—vaccine to prevent whooping cough, for children ages 10-18.

**BRTO**—see *balloon-occluded retrograde transvenous obliteration*.

**Cadwell Easynet nasal pressure module.**

**Chantix**—drug used to help smokers kick the habit.

**C-leg**—a leg prosthesis, so-named because it contains a computer microprocessor in the knee that makes 50 calculations per second to adapt to the user's gait. Do not confuse with *sea legs*.

**conchal cartilage butterfly graft**—a method for alleviation of postrhinoplasty internal nasal valve dysfunction.

**Confidence fenestrated introducer needle.**

**C-port distal anastomosis system**—a system designed to facilitate end-to-side distal anastomosis of blood vessels during on- or off-pump coronary artery bypass surgery, decrease the time required to complete anastomoses, and improve the quality and consistency of anastomoses.

**CTC (computed tomographic colonography)**—a technique for detecting colonic neoplasms. CTC is reliable for detecting lesions 6 mm or larger in size. It permits evaluation of the region proximal to an occlusive growth, which is often not possible with conventional colonoscopy.

**CUP (cancer of unknown primary).**

**da Vinci prostatectomy**—a robotic prostatectomy utilizing the da Vinci Surgical System, a sophisticated robotic platform designed to enable complex surgery using an MIS approach, which consists of a surgeon's console, a patient-side cart with four interactive robotic arms, a high-performance vision system, and proprietary EndoWrist instruments. Motion scaling and tremor

See other new, difficult, and hard-to-find medical terms in the 11th edition of *Vera Pyle's Current Medical Terminology* published by Health Professions Institute, 2007. Watch for future announcements.

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reduction further interpret and refine the surgeon's hand movements. It is said to minimize opportunities for human error when compared with traditional approaches.

**DTPA-Lys(40)-Exendin 4**—a radio-labeled imaging medium used in imaging of infection and highly sensitive imaging of GLP-1 receptor-positive tissues in vivo.

**Eclipse total ankle implant.**

**Farrzyme human high avidity anti-dsDNA enzyme immunoassay kit. fibered confocal fluorescence microscopy (FCFM)**—minimally invasive technique that permits microscopic examination of bronchial epithelium with a 1-mm fiberoptic probe introduced through a bronchoscope; useful in studying premalignant lesions and airway remodeling in asthma.

**Forsure One Step Dip & Read**—drug screen test.

**fractionated stereotactic radiotherapy (FSRT)**—a treatment for brain tumors that are close to critical structures, such as the visual apparatus. Preliminary studies suggest that FSRT is a safe and effective treatment for parasellar meningiomas.

**Gardasil**—cervical cancer vaccine for girls and women ages 11 to 26. It prevents infection from certain strains of human papillomavirus, the main cause of cervical cancer.

**Gore Dualmesh Plus Biomaterial.**

**Gore Mycromesh Plus Biomaterial.**

**Gore Propaten vascular graft.**

**HELEX septal occluder**—a minimally invasive device intended for the closure of ostium secundum atrial septal defects using cardiac catheterization.

**Hem-Com bandage**—an innovative dressing used to stop bleeding from gushing wounds. It uses an organic substance from shrimp shells to help blood cells form clots.

**impedance planimetry**—a procedure used to study the biomechanical properties and their relationships to the sensory and motor function of the GI tract, from the esophagus to the rectum. This system measures cross-sectional area (CSA) and intraluminal pressure simultaneously and facilitates calculation of some of the biomechanical properties of the wall of the esophagus or rectum.

**Inamed**—a silicone-filled breast implant. The implants are available with textured and smooth surfaces and with various profiles and sizes. For use in breast reconstruction in women age 22 and older.

**intervertebral body stapling**—surgical treatment for scoliosis.

**Isologen**—an autologous “living cell therapy” dermal filler. A punch biopsy is taken from behind the patient's ear and sent to Isologen where the collagen-producing cells, called fibroblasts, are separated from the rest of the tissue, then stimulated to multiply into tens of millions of new cells. About six weeks later, 1 to 1.5 mL of cultured fibroblasts are sent back to the doctor for injection into the patient's wrinkles, lines, and scars. Generally three sets of injections will be performed, about two weeks apart. It is believed that the injected fibroblasts will continue to multiply and create new collagen that may fill dermal imperfections and wrinkles, and may reduce the signs of aging. Cryogenic storage of cultured cells may also permit patients to receive future treatments with cells that were harvested when the patient was younger.

**Januvia**—once-daily pill for type 2 diabetes mellitus.

**Kibra gene**—a human gene that affects short-term memory. Drug companies are working to reduce

age-related memory loss by manipulating this gene.

**laparoscopic dismembered pyeloplasty**—an operative procedure for the correction of ureteropelvic junction obstruction with less trauma than open surgery despite a longer operating time and a long learning curve. Also called *Anderson-Hynes dismembered pyeloplasty*.

**LARS** (laparoscopic antireflux surgery)—for treatment of GERD.

**larval therapy**—see *maggot therapy*.

**Lotke offset osteotome**—designed to remove osteophytes from the posterior femoral condyles during knee arthroplasty.

**macular translocation surgery with 360-degree peripheral retinectomy (MT360)**—surgical treatment for age-related macular degeneration involving a two-stage surgery. In the first procedure, the retina is rotated to shift the degenerating macula to a healthy area away from abnormally growing blood vessels and scar tissue. In the second stage, the eye is rotated to account for the ensuing tilt in a person's visual field.

**maggot therapy**—a carefully controlled, artificially induced benign myiasis; also known as *biosurgery*, *larval therapy*, or *maggot debridement therapy*.

**magnetic chemotherapy**—a technique under investigation by interventional radiologists in which magnets are used to pull chemotherapy drugs into tumors. Microscopic magnetic particles attached to cancer-killing drugs are infused through a catheter into the blood vessel that feeds the tumor. A rare earth magnet positioned over the patient's body directly above the site of the tumor pulls the drug-carrying particles out of the blood vessel so that they lodge in the tumor.

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**MCE**—see *myocardial contrast echocardiography*.

**Mentor MemoryGel**—a silicone gel-filled breast implant for use in breast reconstruction and also for breast augmentation in females age 22 and older.

**MII**—see *multichannel intraluminal impedance*.

**modified Mini-Maze procedure**—minimally invasive procedure to treat atrial fibrillation. During the procedure, surgeons insert instruments into the chest through several keyhole-size incisions between the ribs. With the aid of a tiny video camera, a specially designed instrument is placed around the top of one of the atria and energy is delivered to destroy the tissue near the origin of the irregular impulses. The damaged tissue disrupts the abnormal signaling pathways, stopping the irregular impulses.

**molecular condom**—a vaginal gel composed of molecules that are liquid at room temperature but when applied in the vagina turn into a gel and effectively coat the tissue; the gel then releases anti-HIV drugs when it comes into contact with semen during intercourse. The product is still investigational but has promise.

**Mooncup**—a reusable menstrual cup about 2 inches long and made from soft silicone rubber. It is worn internally like a tampon but collects menstrual fluid rather than absorbing. Unlike tampons, the Mooncup is not a disposable product, so the customer needs only one.

**MT360** (macular translocation surgery with 360° peripheral retinectomy).

**multichannel intraluminal impedance (MII)**—a technique for evaluating esophageal function and gastroesophageal reflux (GER). The presence and character of a liquid or gas bolus can be assessed through changes in impedance (resistance to flow of current) between two elec-

trodes placed near the upper and lower ends of the esophageal lumen. The combination of this technique with esophageal manometry (MII-EM) provides simultaneous information on intraluminal pressure changes and bolus movement. The volume and acidity of esophageal refluxate in GER, as well as refluxate clearance time, can be observed by a combination of impedance testing and pH monitoring (MII-pH). MII-pH is a promising tool for assessment of GER in the postprandial period and of patients with persistent symptoms despite acid suppression therapy.

**myocardial contrast echocardiography (MCE)**—an ultrasound imaging technique that detects not only microvascular volume but also blood flow, the only multivariate predictor of global recovery of function (compared to SPECT and standard echo).

**nanobandages**—investigational ultrafine polymer nanofibers infused with chemicals that open a wound to oxygen and reduce inflammation, kill bacteria and repair slow-healing wounds faster than conventional methods.

**neuro rescue**—technique that involves delicately removing part of a patient's skull to allow the brain to swell instead of putting pressure on the brainstem. After closing the scalp, microballoons and medications are used to unclog any narrowed blood vessels. When swelling has subsided several months after the injury, a computer-aided model of the patient's head is used to create a hard acrylic implant to insert when closing up the skull.

**nonsurgical treatment**—the use of a catheter to administer drugs into diseased areas through blood vessels or body cavities with only a puncture. The catheters are guided by radiologic imaging.

**NOTES** (natural orifice transenteric surgery)—a gastric-bypass operation that is conducted through a hole in the stomach, reached via the mouth. It is said to leave no scar, and patients can be back to their regular activities the next day.

**Oberlin's partial ulnar nerve transfer**—surgical procedure for treatment of Erb's birth palsy.

**Olympic Cool-Cap**—designed to provide selective head cooling with mild below-normal body temperature cooling in term newborns. The main components are a cooling unit, a control unit, temperature probes, and a water-filled cap.

**Omar technique**—a simplified spleno-renal shunt procedure that is an alternative to the still popular Linton procedure developed in 1947. It involves dissection of the fusion fascia of Toldt and is said to help achieve good vascular control, permit easier dissection of the splenic vein, enable an ideal anastomosis, decrease intraoperative blood loss, and reduce the duration of surgery.

**Paragon Z CRT rigid gas-permeable contact lens**—for corneal refractive therapy.

**PELD**—see *percutaneous endoscopic lumbar discectomy*.

**Penenberg gluteus retractors. percutaneous endoscopic lumbar discectomy (PELD)**—minimally invasive slipped disk surgery, done under local anesthesia.

**phakic intraocular lens (IOL)**—so-called because it is applied without removing the patient's original lens. It is intended to correct myopia and some astigmatisms in patients age 21-45 who have healthy eyes and stable vision.

**Piezosurgery**—a device that uses piezoelectric ultrasonic technology to generate mechanical microvibrations for bone cutting and ultrasonic scaling, with minimal trauma

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to soft tissue. The device is supplied with sharp, smoothing and blunt insert tips for use in oral surgery, including implantology, periodontal surgery, endodontic surgery and surgical orthodontics.

## **Protégé GPS and Protégé RX carotid stent systems.**

**QMMI** (Quality Measurement and Management Initiative) **score**—a clinical prediction instrument for major adverse outcomes in coronary bypass grafting. Variables to determine the score include age, gender, prior coronary bypass grafting, cardiogenic shock, ejection fraction, creatinine, and history of liver disease, stroke, COPD, and hypertension.

## **qPCR** (real-time PCR).

**Radiesse**—an injectable calcium hydroxylapatite implant in the form of a gel, to temporarily add volume to facial tissue and restore a smoother appearance to the face.

## **RADPLAT** (radiation+platinum)

**protocol**—an acronym used to describe an investigational therapy for advanced head and neck squamous cell carcinoma. The therapy combines intra-arterial delivery of cisplatin with systemic neutralization by IV sodium thiosulfate and concurrent radiotherapy with excellent locoregional control rates in patients with unresectable disease with a favorable side-effect profile when compared with conventional chemoradiation protocols. RADPLAT may also be of benefit in selected patients with resectable disease, allowing for preservation of organ function and quality of life without compromising locoregional control or survival.

## **Redler small bone caliper.**

**ReSTOR** (or Restor) **lens**—see *AcrySof ReSTOR* apodized diffractive optic posterior intraocular lens.

**Reviderm Intra**—an injectable implant made of flexible dextran (a carbohydrate complex, the liquid form of which was once used in place of saline in breast implants) microbeads, 40-60 microns in size, evenly suspended in a non-animal hyaluronic acid.

## **Robb cement curette.**

**sequence-specific oligonucleotide probes** (SSOP); **SSOP-ELISA method**—a lab test similar to the PCR-RFLP technique.

**Sifilcon A, Sifilcon B**—spherical, toric, multifocal and multifocal contact lenses.

**SmartPill GI monitoring system with SmartPill pH.p capsule**—a computer-aided GI monitoring system which makes use of an ingestible, wireless capsule that measures pressure, pH, and temperature as it transits the GI tract. This information is used to provide gastric emptying time, combined small and large bowel transit time, total transit time, pressure contraction patterns from the antrum and duodenum and motility indices. The procedure can be performed in a doctor's office, and patients are free to go about their normal routine during the test.

## **Smithwick carotid shunt.**

**Soliris** (eculizumab)—for the treatment of paroxysmal nocturnal hemoglobinuria, a rare type of blood disorder that can lead to disability and premature death. Soliris is classified as an orphan drug.

## **Sorrells posterior condylar chisel.**

## **Sorrells tibia protector plates.**

**SpiderFX embolic protection device**—a percutaneously delivered device that can be delivered over any 0.014 inch or 0.018 inch guidewire. It contains a capture wire composed of a nitinol mesh filter mounted on a 190-cm or a convertible 190/320 cm PTFE-coated 0.014

inch stainless steel guidewire and a dual-ended SpiderFX catheter for delivery and recovery.

**Stelkast Surpass**—a ceramic-on-ceramic artificial hip replacement system.

## **Sure Grip soft tissue grasper.**

**Tenderflow pediatric venous return cannula**—a device used to drain the right atrium and superior or inferior vena cava in pediatric patients.

## **Thornhill offset proximal femoral elevators.**

**Trilogy AB**—an acetabular prosthesis used in hip replacement surgery.

## **TRU-MR laryngoscope set.**

**Turkish tulip technique**—for the primary repair of bilateral cleft lips simultaneously. With this technique it is possible to lengthen the columello-prolabial complex with cleft lip repair in the same session without any intervention to any part of the nose including the columella.

**ultrasound osteotomy**—a term coined by orthopedic surgeons who use an ultrasound bone scalpel to perform correctional osteotomy of the metacarpal bone. See *Piezosurgery device*.

**Visian ICL**—a phakic intraocular lens. See phakic intraocular lens.

## **Wubben lateral fat pad retractor.**

**Xpert EV test**—uses molecular biology to quickly detect the presence of viral meningitis (as opposed to the more deadly form, bacterial meningitis).

## **Zeus Micro Wrist robotic system.**

**Zolinza**—drug for use in patients with T-cell lymphoma, and currently being studied for other types of blood and lymph cancers.

**Zostavax**—vaccine to prevent shingles, recommended for people over age 60 (who are at greatest risk of post-herpetic neuritis).