

VOLUME 3



Aesthetic News is a publication of Dr. John Zimmermann's Aesthetic Surgery Center of Napa Valley. For additional information, contact us at 707 258-6077 or via e-mail at jpzmd@ascnv.com

### AESTHETIC SURGERY CENTER OF NAPA VALLEY

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# BOTOX & BEYOND INJECTABLE SOLUTIONS FOR WRINKLE REDUCTION

### SHEILA REILLY, R.N.

SUMMER 2003

PALA

Recently there has been an influx of information regarding injectable solutions that can be used to fill in wrinkle lines, paralyze muscles that create wrinkles, and even solutions designed to resculpt the facial structure. Some of these solutions are currently available in this country and some only overseas. There is much interest in this area of medicine as there is very little down time associated with this type of treatment, and the cost is moderate thus not requiring a major financial commitment. In fact, the American Society of Plastic Surgeons recently compiled statistics about the most popular plastic surgical procedures and found the use of injectable fillers to be the most adiscussion of the most popular injectables and their uses.

### 1. Botox:

*Origin:* Purified botulism toxin used since 1989 for relieving eye spasms and/or excessive sweating. Excellent safety profile.

**Uses:** To block the ability of muscular contraction that results in wrinkling. Most commonly used around the eyes (crow feet), in between the eyebrows (frown lines) and the horizontal creases on the forehead (furrows).

Longevity & Costs: Most patients will experience an average of 6 months duration per treatment. Recent literature suggests that repeated treatments with Botox may result in atrophy or weakening of the muscles treated whereby even after the effects of Botox wear off, the muscle may not be able to contract to the same degree that it previously had. Cost is usually \$300 per treatment site, (we give a discount if more than one site is being treated).

*Side effects:* Slight bruising/tenderness at the site. If administered incorrectly, can lead to unwanted, albeit temporary, paralysis of facial musclulature. Bottom line is, once again, go to an experienced practitioner.

*Summary:* We have been using Botox in our practice for approximately 11/2 years and have found it to be amazing in what it can accomplish.

It is minimally invasive and significantly impacts lining and wrinkling.

### 2. Radiance:

**Origin:** Synthetic form of calcium hydroxyapatite, a material found in bone and teeth. Has been cleared by the FDA and used in treating vocal cords and bladder abnormalities. With patient consent, it can be used for cosmetic purposes.

**Uses:** Radiance is a smooth, thin, cream-like substance, which can be injected into the body in the same fashion as collagen, for the purposes of reducing deep wrinkles and to increase lip volume. Radiance is injected into the muscle and fat layers and unlike collagen, does not require allergy testing.

Longevity & Costs: 3-5 years is the average duration. A 1 cc syringe of Radiance runs approximately \$1200. The amount of Radiance to augment a lip will vary based on the patient's desired end result, but between 1 and 2 cc's is a reasonable estimate. Also, depending on the depth of a wrinkle, 1 cc may be sufficient to fill one or several wrinkles, in order to give a more accurate cost estimate, a patient would need to be seen by the physician. *Side effects*: Temporary bruising/swelling at the site, clumping of material if not injected properly.

*Summary:* An exciting new player in the field of injectables, longevity looks great as well as lack of allergic potential. Results are immediate and have been very impressive in our clinical practice. As it is so new, there is a lack of long term clinical data associated with its use, but the data that is available looks very promising.

### 3. Restylane:

**Origin:** colorless transparent gel consisting of stabilized hyaluronic acid. Hyaluronic acid is a natural substance found in great abundance in young skin, joint fluid and other tissues in humans and animals. The gel is sterile and free from products of animal origin, so pre-testing for hypersensitivity is not required.

**Uses:** The manufacturer has developed three formulations to effectively meet the vast majority of patient needs. Perlane is used for deep folds, facial contours and lip enhancement. Restylane is for moderate wrinkles and lip enhancement. Restylane Fine Lines is the third formulation used for the correction of very thin, superficial lines.

Longevity & Costs: Clinical trials show that Restylane is effective for up to one year. Most patients choose to have a follow-up treatment between six and tweleve months after initial treatment. The cost of Restylane appears to be in the \$500-\$1000/treatment range. Restylane is not yet available in the US, so precise pricing information is not available.

*Side effects:* Immediately after treatment you can expect some redness, swelling, tenderness and an itching sensation in the treated area. This is a normal result of the injection.

*Summary:* Restylane was developed in 1996 and has been used in hundreds of thousands of people world-wide. Restylane is not yet FDA approved, so its availability in the US was limited to clinical trial uses only. Estimates of FDA approval range from any day to the first quarter of 2004. Restylane has enjoyed very positive media coverage in the US and demand is expected to be high once FDA approval is granted.

### 4. Artecoll:

**Origin:** Consists of 75% collagen solution, 25% polymethylmethacrylate (PMMA) microspheres and the anesthetic lidocaine. The body absorbs the collagen solution in one to three months and replaces it with its own collagen. The absorption of the Artecoll collagen, and the replacement with the body's collagen occur at a similar rate. The PMMA microspheres serve as a stimulus for collagen formation. After the entire process is complete (3 to 6 months), the area treated consists of about 75% of the body's own collagen and 25% PMMA microspheres.

**Uses:** Artecoll is an injectable micro-implant for the correction of facial wrinkles, lines, and furrows. It has also been used for lip augmentation.

*Longevity & Costs:* 5-10 years is the average duration. Projected treatment costs range between \$600 and \$1200 depending on the number of areas treated. Artecoll is not yet FDA approved so accurate pricing information is not available.

Side effects: The initial natural swelling and reddening of the

implantation site subsides within one day and occasional bruising disappears within 3-7 days. Slight itching can last for a few months and is caused by the collagen remodeling process around the microspheres.

The Artecoll implant may be palpable under the skin or within the lip, but not visible. This phenomenon usually resolves spontaneously within three months as new collagen is laid down around the spheres, which softens the implant.

Allergy to bovine collagen may be existent or may develop. Even if the allergy rate in Artecoll patients is less than 0.1 percent, an allergy test in the forearm is advisable 30 days prior to the first Artecoll implantation. Some Canadian doctors have reported small lumps (granuloma) in patients whose lips were augmented with Artecoll but this has not been seen with wrinkle, line and furrow treatments.

*Summary:* FDA approval could come any day. For patients interested in a more permanent solution to facial wrinkles, lines, and furrows Artecoll may be right for you. Artecoll has also received favorable press in the US, which has created a great interest in Artecoll treatments.

#### 5. Collagen:

**Origin:** Collagen is a natural protein found throughout the body in skin, muscle, tendon and bone. Fibers of collagen are woven together like threads in fabric to form structural support for the outer layers of skin. As we age, these soft tissue structures begin to deteriorate thereby decreasing support to the top layers of skin resulting in wrinkling, creasing and scarring. Injectable collagen is derived from two sources: bovine or human tissue. The bovine collagen requires a patient to have a skin test approximately 6 weeks prior to a treatment to determine if they have allergies to the bovine elements. The human collagen does not require any skin testing prior to treatment.

**Uses:** Collagen Replacement Therapy is meant to restore the defects that occur in the soft tissues of the face as a result of aging. Another popular use for collagen is to augment/enlarge the lips. Collagen has the best results when used on the lower face: around the mouth and nose. It is not the treatment of choice for upper facial wrinkles.

Longevity & Costs: Results of the treatment are immediate and the duration varies from 3 to 6 months depending on the area being treated. A 1 cc syringe of Collagen costs approximately \$350. The amount injected into an area will vary based on desired outcomes and what a patient presents with in terms of wrinkling. A more accurate price estimate would be given at the consultation appointment.

Side effects: Minor bruising/swelling at the site of injection.

**Summary:** Collagen has been around for a long time and boasts an excellent safety profile. With the advent of human collagen, the need for allergy testing is eliminated. However, collagen is not the drug of choice in instances where a patient has deep creases or when they want a long term solution for their facial wrinkling.

## GUIDELINES FOR CHOOSING SUPPLEMENTS

### Michael Reilly, M.B.A.

Prior to coming on board at the Aesthetic Surgery Center of Napa Valley I worked for two and a half years for MIT graduate and chemist, Raymond Francis. Francis had been a consultant in the vitamin industry for years and developed these guidelines for choosing supplements.



Minerals can come in many forms, some of which absorb much better than others. To evaluate a vitamin/mineral formula, look at the name following the mineral name to determine what formulation the mineral is in, i.e. with calcium carbonate, the formulation is carbonate. Using the list below, we see that carbonate is the least desirable formulation, as it is not easily absorbed by the body.

Use the guidelines below to evaluate and determine the absorption potential of supplements you have or are considering for purchase.

Poor Absorption	Acceptable Absorption	Optimal Absorption
Carbonate	Aminoate	Ascorbate
(e.g., calcium carbonate)	Chelate	Citrate
Oxide	Gluconate	Fumarate
(e.g., magnesium oxide)		Malate
Sulfate		Picolinate
Phosphate		Succinate
		Tartrate

Next look at the B vitamins, specifically vitamins B2 and B6. In a high-quality formula, vitamin B2 (riboflavin) will also be accompanied by its more expensive and bioactive form, riboflavin 5-phosphate. Similarly with vitamin B6 (pyridoxine HCL), a high-quality formula will also contain the more expensive bioactive form: pyridoxal 5-phosphate.

A multivitamin should NOT contain iron, copper, and iodine. These minerals react with and destroy other nutrients in the formula (e.g., these particular minerals can destroy the beneficial anti oxidants in the formula, also, iron competes with zinc and calcium for absorption).

No foolproof way exists to evaluate a vitamin product without knowing exactly what is going into the product, how old the ingredients are; how they have been shipped, handled, and stored; and how pure they are. Some vitamin manufacturers have purchased ingredients from the aftermaket (buying outdated raw materials from other vitamin manufacturers). Their ingredient list may contain the chemical forms listed above under "optimal absorption" but since it was purchased aftermarket, the potency may be reduced to those listed under "poor absorption" or worse. As consumers, we are not made aware of such practices and there is little we can do to protect ourselves since you cannot see or feel quality in a vitamin pill but by following the steps above, you can get closer to buying an effective product.

Based on this knowledge, we researched and found a brand of vitamins that meets the above discussed criteria. The brand we have brought in is Perque. Perque is a prescription grade vitamin developed by a physician from the National Institutes of Health. Due to its potency, Perque is available only in doctor's offices under the guidance of a trained practitioner. Over the past 10 months, we have been placing many of our surgery patients on a vitamin regimen before and after surgery to facilitate optimal healing. Many of the patients report feeling so much better than they previously had, that they have opted to stay on the vitamins after their post-operative course is finished. Pergue is an excellent program for anyone interested in maximizing their body's potential. For more information and/or a wellness consultation, contact Michael at (707)258-6077.



# VHERE'S THE BEEF?

It has been almost twenty years since Clara Peller first uttered those words in what soon became one of the most popular catch phrases of the 1980s. As we learn more about the vital role that good fats play in a healthy diet, Clara Peller's phrase "Where's the beef?" takes on a whole new significance.

Michael Reilly, M.B.A.

### "Real" Beef is Hard to Find

### **Buyer Beware**

"Real" beef (as nature intended) comes from cows that eat grass, not grains. The reason that beef has fell out of

favor at many American dinner tables over the years is its fat content. Not only do most beef cuts have a high fat content, ranging from 35% to 75%, but the majority of it is saturated fat. In contrast, grass-fed beef usually has less than 10% of its fat as saturated.

The most important difference from a health standpoint can be found when we compare the omega 6 to omega 3 fatty acid ratios. According to current research, the proper ratio for humans of omega 6 fatty acids to omega 3 fatty acids falls in a range between 1 to 1 and 3 to 1. Most Americans consume a diet that is more in the range between 25 and 50 to 1. One can easily deduce from these numbers that there is an over abundance of omega 6 fatty acids in the typical American diet, while omega 3 fatty acids remain elusive in our food choices. When you consider that practically every cell membrane in your body is made up of these fatty acids, it becomes imperative to restore the natural 1 to 1 omega 6 to omega 3 ratio. A proper ratio can help maintain or restore normal cell function. Essential fatty acid imbalances have been linked to cardiovascular disease, cancer, PMS, attention deficit hyperactivity disorder, premature births, arthritis and other inflammatory/autoimmune diseases. Grain-fed beef contributes to the fatty acid imbalance with a 20 to 1 ratio of omega 6 to omega 3. Grass-fed beef on the other hand, can actually contain MORE omega 3 than it does Omega 6 at a ratio of 0.16 to 1.

The differences between grass-fed and grain-fed beef does not end with fatty acid ratios. The following benefits can be obtained by switching to grass-fed beef:

- 300 to 400% more CLA (Conjugated Linoleic Acid), a fat that reduces the risk of cancer, obesity, diabetes, and a number of immune disorders.
- 400% more vitamins A and E
- Virtually devoid of risk of Mad Cow Disease
- Grain feeding promotes the growth of dangerous E. coli that is more likely to pass through your stomach and infect your colon. When cattle are fed grass, the amount of dangerous E. coli decreases dramatically. (Microbes Infect 2000 Jan;2(1):45-53)

Unfortunately, you have to be a bit diligent to make sure you are purchasing 100% grass-fed beef. Some processors will promote their beef and or bison as grass-fed, but upon further investigation it is learned that the animal is "finished" on grain in the feedlot months before it is slaughtered. In fact, there is grass-fed labeling legislation under consideration, which allows 20% of the animals diet to come from grain. For the health conscious consumer who is looking to reap all the benefits of grass-fed beef or bison, this type of labeling is deceptive and of little use. If a meat product is labeled as grass-fed, ask the meat department buyer if it is 100% grass-fed and for further clarification, make sure it was NOT "finished" on grain. If you are assured that the meat is definitely from a grass-fed source make sure the herd was not treated with antibiotics or hormones.

The demand for grass-fed beef and bison is on the rise. It is an excellent low calorie, low fat, source of protein. In fact, its nutritional profile is very similar to that of fish but without the risks of mercury bioaccumulation that is now associated with many species of fish.

Recently a local grocer in Sonoma brought in grass-fed beef because enough customers had asked for it. According to the San Jose Mercury News and San Francisco Chronicle many of the top Bay Area Chefs and trendy eateries offer several grass-fed beef entrées on their menus. For those with room in the freezer, you may want to inquire about ordering grass-fed beef directly from the producers. For a list of producers from Marin, Napa, and Sonoma Counties, check out the Eat Wild web site at http://www.eatwild.com

### **How Does it Taste?**

The flavor, look, smell, and texture of grass-fed beef differs slightly from grain-fed beef. It also cooks about 25% faster due to its low fat content. Those used to eating a lot of corn fed beef may have to adjust to the grass-fed flavor. Many Europeans who have immigrated to the US were raised on grass-fed and prefer it to the taste of US grain-fed beef. When it comes to taste preferences, it probably boils down to what type of beef you are accustomed to eating; but when you factor in the differences from a health standpoint, the taste of grass-fed improves with each healthful bite.

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# HYPERBARIC OXYGEN THERAPY CONTINUES TO IMPRESS

Michael Reilly, M.B.A.

Now that we have had over seventy-five patients undergo hyperbaric oxygen therapy (HBOT) for post surgical healing, we feel we have treated a large enough patient population to properly evaluate its effectiveness. As the title of the article states, we have been extremely impressed with the results we have seen in patients who undergo (HBOT). HBOT's effect on swelling, bruising, and redness (from laser surgery) has been dramatic.

### How Do We Know It's Working?

The rate at which a person heals can vary greatly from one person to the next. So how can we attribute an overall acceleration in the healing process to HBOT, when so many factors can affect the healing outcome? The answer is simple; on average, the results from HBOT have been dramatic enough for us to clearly see the difference between the patient population who has the treatment versus those who do not. In addition, we have over twenty-two years of experience caring for patients post operatively, thus we are very familiar with the rate at which patients normally heal.

There are many other factors that can affect the rate at which the body heals. Below is a list of those that have the most influence:

- HBOT
- The skill of the surgeon.
- Overall health of the patient
- Stress level of patient
- Diet (As it relates to salt, sugar, and processed food intake)
- Attitude (positive/negative)
- Genetics
- Quality supplementation

If we breakdown the rate at which patients heal into three categories, below average, average, and above average, we find that HBOT appears to bump patients up to the next category. For example, if a patient is average in the rate at which they heal, HBOT can move them up to the above average category. HBOT can even help those in the above average categories experience extraordinary results.

### **Expanding HBOT's Role**

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Convinced of HBOT's efficacy as it relates to the acceleration of the healing process of our patients, we have begun to research other applications for the therapy. Some of the most promising information we have come across deals with the treatment of stroke, arthritis, problem wounds, fibromyalgia, Cerebral Palsy, and athletic injuries. Stay tuned for further developments as we look to expand this exciting therapy beyond the surgery patient population.



# MEET THE STAFF:

### Kendra Steffen.

Kendra has been an aesthetician with our office for over one year. In addition to her training in aesthetics, Kendra has 23 years of experience as a licensed cosmetologist. Her expertise with skin and makeup lends itself well to our spa where she might be found assisting clients with pre and post-operative skin care, and camouflage makeup, or performing a multitude of skin care treatments. She is an excellent resource with respect to skin care products and treatments. Her flair for design is also put to use in sprucing up the product displays we have throughout the office. In addition to looking good, she keeps the spa smelling good with a lovely array of aromatherapy blends that she creates for use in our spa treatments and for retail sale. Kendra is available during the week and on Saturdays for facial appointments.



### HEALTH UPDATES:

## More fish about to get fried:

The Food and Drug

Administration (FDA) is now using the

Environmental Protection Agency's (EPA) much lower recommendation for a safe level of mercury in the human body.

Previously, the FDA's safe level for mercury was four times higher than the EPA's standard.

The FDA plans to add more fish species to the list of fish to avoid if tests reveal that a species tends to exceed the new safe level of mercury.

### **Kids and Organic**

**Foods-** Researchers interviewed families with children 2 to 5 years old. Children who ate at least 75 percent organic produce and juice were classified as organic while those who ate at least 75



percent conventional
produce were classified as conventional.

 The study found that
children who ate primarily organic produce and juice

had one-sixth the level of pesticide byproducts in their urine compared with children who ate non-organic food.

**Buy that ear piece-** Radio signals from cell phones caused cells in three areas of rats' brains to die.

The three affected areas were the cortex, which plays a role in highlevel mental function; the hippocampus, which is important in learning; and the basal ganglia, which plays a role in the experience of sensation.

Researchers say that the study does not demonstrate cell phone use is harmful to people, but recommend the use of a hands-free device to keep the cell phone as far from the brain as possible, adding that the use of cell phones is a "huge biological experiment."

### Better get your Zzzzzs:

According to a study of 185 people between the ages of 59 and 91 years, those who spent more than 30 minutes trying to fall asleep were more than twice as likely to die within 13 years than people who fell asleep more quickly. Similarly, people who spent less time actually sleeping were almost twice as likely to die during this time period than those who slept easily.

### The latest buzz on decaf

A study involving 64,000 women

found that drinking more than one cup of decaf coffee per day quadruples the risk of developing rheumatoid arthritis. Researchers point to the use of industrial solvents during the decaffination process as a potential cause.

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SHEILA REILLY, R.N.

t's summertime and the living is easy. It does seems as if . summer allows us more time to play. With it being light until well into the evening and with the triple digit degree days driving us to seek refuge at the beach, we spend significantly more time out in the elements. Therefore, special attention needs to be paid to treating and protecting our skin properly. A broad spectrum UVA and UVB blocking sun protection product needs to be part of everyone's daily regimen, regardless of the time of day or whether it is cloudy. UVA rays go right through car windshields to impart their damage and the level of sunscreen present in most makeup products is not sufficient to protect your skin from the hot California sun. We currently have four different broad spectrum sun protection products available ranging from an SPF 20 to 45. We carry several different varieties because some skin types require more emollient formulations than others. If you have any questions as to whether your current regimen is providing appropriate coverage, don't hesitate to give us a call. Dr. Zimmermann has written a handout discussing how to choose an appropriate sun protection product, which we will be happy to provide upon request.

In addition to sun protection, exfoliation is especially important in the summer when we tend to accumulate dead dry layers on the surface of our skin. We have many treatments designed to remove these layers, some medical grade such as the glycolic acids and microdermabrasion, and some nonmedical but very effective such as the deep cleansing and the rehydrating rescue facials. The microdermabrasion is a gentle, yet effective method of using ammonium oxide crystals under pressure, to remove the surface layers of dead skin. The skin is left soft, smooth and with a wonderful glow. As an added incentive, we are offering a special on our microdermabrasion treatments, see the spa specials section of the newsletter.

In other news, Alyce Murphree, R.N. continues to provide her artistry to our patients in the form of permanent makeup. If you haven't had the opportunity to see Alyce's work, stop by the office and thumb through one of her many patient photo books depicting the process photographically. Alyce has recently lowered the price on the procedures because she is finding that very few patients are needing the two touch up appointments she included in the original pricing. Therefore, she provides one touch up appointment, lowered the price across the board, and if additional touch up appointments are needed, the patient can have them

done for a nominal fee. As far as easy summer living goes, permanent makeup is wonderful in the summer; you can swim, be outdoors all day and still retain a natural looking amount of color and enhancement to your facial features. Remember permanent makeup does not equate to Tammy Faye Baker, it can be tastefully done and as subtle as you like ranging from enhancement to a more glamorous made up look. If you have any questions about her work, Alyce can be reached at (707)224-2507. Check the

summer seminar schedule at the end of the newsletter for a list of evening seminars Alyce will be hosting to talk about her work and show her patient's before and after photos.

While we are on the subject of Alyce... she has taken on a new role, that of collagen specialist. Alyce has just finished her training and will be injecting collagen for the patients in our practice. Check out her patient photos, they are nothing short of remarkable. From this point forward, when you call to schedule a collagen injection, our front office staff will be scheduling your appointments with Alyce.

Things to look forward to.....we are in the process of investigating a UV free tanning system. It is a shower stall type of unit that in less than a minute mists the body with bronzing agents to provide a safe, even tan that will last for up to a week. We will certainly keep you updated on our progress and availability.



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### **Seminar Schedule:**

Join us for our series of evening seminars addressing topics relevant to your interests and needs. All events will be held at our offices at 3443 Villa Lane, Suite 10, Napa. Admission is complimentary and light refreshments will be served. For a reservation, please call (707) 258-6077 or email us at jpzmd@ascnv.com.

### • Surgical and Non-Surgical Options for Looking Your Best

Thursday, August 21\*, 7pm - HealthQuest Fitness Center Tuesday, September 23, 7pm Tuesday, October 14, 7pm Tuesday, November 18, 7pm

### • Skin Care, Permanent Makeup and Collagen

Tuesday, August 12, 6pm Tuesday, August 26, 6pm Tuesday, September 9, 6pm Tuesday, October 7, 6pm Tuesday, October 28, 6pm Tuesday, November 18, 7pm



- 25% off Microdermabrasion Treatments. Applies to either blocks of treatments or individual treatments. Offer expires 12-31-03.
- Attend an evening seminar and receive a bag full of goodies including a complimentary private consultation with Dr. Zimmermann, (\$100.00 value) and a skin care consultation with our aesthetician staff. (\$35.00 value)

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