

DAFFODIL BULB Left: The daffodil's genus name, narcissus, is Greek youth who fell in love with his own reflection in a pond. ASIATIC LILY among the easiest for its vibrant colors and

THE HEALING POWER OF FLOWERS They don't just make you happier—they can make you healthier. Michele Owens looks into the budding research on floral therapy. Take twsters and call us in the morning.... PHOTOGRAPHS BY HAROLD FEINSTEIN



DON'T JUST LOVE FLOWERS, I NEED THEM. I garden like mad and fill my yard to overflowing with them. And every morning between the arrival of the first crocuses in April until the end of the sweet autumn clematis blooms in October, I set my alarm a little early so I can take a tour of my garden, cup of coffee in hand, before my children wake up.

What I get in those five or ten minutes of wandering the garden is at once complicated and primal: thrills and chills from the explosions of flower color, shape, texture, and scent. Object lessons in hope and renewal—I know that the lumpy, unpleasant-smelling bulb I stick in the ground in October is going to yield the absurd glory of the imperial fritillaria in May. At the same time, I come away with such a profound sense of peace that it allows me to move hopefully through even the most frantic day, to manage the gritty juggling act that is motherhood-plus-paid-employment with the sense that it is all adding up to something transcendent.

I often wonder why I get such mental and moral uplift from a bunch of silly tulips and lilies. It's a peculiarly disproportionate reaction, but clearly I'm not alone in it: The power of flowers is woven throughout our culture. It's common wisdom that if you want a good life, you have to stop and smell the roses. We use flowers to say all kinds of significant things to each other, from "I love you" to "Get well soon." And people have long understood that flowers actually do help you get well soon.

As far back as ancient Egypt, physicians would order walks in gardens for their patients with psychological problems. By now horticultural therapy is a well-established tool of rehabilitation for patients with physical as well as mental difficulties, and medical institutions of all kinds have built gardens specifically designed to be therapeutic, from "wander gardens" for people suffering from dementia to gardens for the blind that focus on texture and scent.

The therapy itself includes almost any contact with plants, from the frivolous business of making crafts with flowers all the

way to the serious business of farming and marketing crops, but the key point is that it works: People relax and heal when they spend time in gardens. One study of cardiac patients found that horticultural therapy improved their moods and lowered their heart rates, possibly reducing the stress that contributes to heart disease. Nancy Chambers, who directs the Enid A. Haupt Glass Gardens at the New York University Medical Center Rusk Institute

of Rehabilitation Medicine in New York City, has observed that when patients are in the gardens there, they seem to forget about pain—and their pain medication.

Ask her why horticultural therapy works, though, and she instantly admits, "There hasn't been much research. We just know intuitively that it does work."

FLOWERS, IN THE VIEW OF TERRY McGUIRE, ARE THE PETS OF THE HORTICULTURAL WORLD. Jeannette Haviland-Jones, PhD, director of the Human Emotions Lab at Rutgers University and one of the few psychologists actually studying the flower effect, began investigating the flower-emotion connection on a bit of a lark and then found herself gripped by the results. Her first study determined that 100 percent of women presented with a flower bouquet would react with what scientists call the Duchenne smile, a genuine smile that

involves the eyes as well as the mouth and indicates measurable changes in the brain. In other words, happiness. There was no such unanimity among the women presented with other gifts.

"I've been doing this for a long time," says Haviland-Jones.
"You never get 100 percent in any experiment. The only time you can get close to that is if you suddenly drop a snake on >

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someone: You'll get a good fear expression every time, even from people who like snakes."

Further studies done by Haviland-Jones found that men, too, reacted positively to flowers, and that flowers not only make people more sociable than other gifts do but seem to enhance brain functioning, improving episodic memory in older people.

The question is, why does the flower effect work and why does it work so powerfully? It's obvious why we startle when a snake is

dropped down our back; that's a self-preservative reaction. But why on earth should flowers light us up like pinball machines?

THERE ARE A FEW THEORIES. THE FIRST IS SIMPLY THAT we've learned to like flowers and to associate them with pleasant things: our mother's perfume, gifts, parties, summer dresses. In a fascinating paper that attempts to make sense of the flower-mood connection, Haviland-Jones and her coauthors

argue that "learned association" fails to explain why flowers have "stronger positive emotional associations across cultures and history" than food or other valuable gifts. Even to me, the nonscientist, the cultural explanation feels too weak. I don't believe for a second that I learned to love flowers. I think I was helplessly reeled in.

A second possible explanation is that we've evolved to associate flowers with food and like them for that reason. Obviously, flowers are a sign of vegetables and fruit to come, and they share bright colors with ripe produce. Richard Mattson, PhD, head of the horticultural therapy program at Kansas State University, points to a study that found that merely being in a room with red-flowering geraniums measurably raised women's level of alertness while at the same time reducing their stress. Geranium blooms had no such dramatic effect on men. "In women this response to color might have happened as a survival mechanism, since they were probably the gatherers of the hunter-gatherer clan. After all, it was Eve who was attracted to the red apple."

Behavioral geneticist Terry McGuire, PhD, husband of Haviland-Jones and lender of an evolutionary perspective to her flower work, instantly pokes a hole in the food-flower connection: "We don't eat dahlias, but I've got them on my desk. Tomatoes are tasty, but I never bring tomato flowers into my office." He's right. We can argue about apples, okras, and eggplants if you like, but most food plants do not have very interesting flowers. And the most beautiful flowers—peonies, lilacs, lilies, tulips, orchids—never add up to a meal.

So why then would we humans have evolved into creatures willing to sacrifice rich cropland and expend brute labor to grow such useless beauties? Of course, I'd argue that the brute labor itself is an important part of what makes flowers uplifting— [CONTINUED ON PAGE 346]



