HEALTH INDUSTRY | NOVEMBER 16, 2010

The 8-Year-Old With a Perfect Smile

More Young Kids See Orthodontists, But Treatment Is No Guarantee of Teen Years With Braces

By NANCY KEATES

Kids still getting visits from the Tooth Fairy are getting braces.

The number of children 17 and younger getting orthodontic treatment has grown 46% over the past decade to 3.8 million in 2008, the latest figure available from the American Association of Orthodontists. The association doesn't break the number down further by age, but Lee W. Graber, the Association's president, estimates that in his own practice 15% to 20% of the 7- to 10-year-olds he sees get treatment.

Parents' hope is that the more early treatment a child gets—that is, before all the adult teeth have come in—the less treatment the child will need later on. While that's true in some cases, what many parents don't realize is that for some of the most common orthodontic problems, early treatment offers no guarantees against a second round of treatment in the teenage years

and may not save time or money.

Bailey Berman

AGE: 8

ORTHODONTIC PROBLEM: Crooked front tooth

TREATMENT: Braces on six top teeth

COST: $900

EXPECTED LENGTH OF TREATMENT: Six months

View Full Image

John Clark for The Wall Street Journal

Bailey Berman

Some parents remember their own metal-mouthed teenage years and are eager to spare their children the anguish. "We are hoping it will let her avoid a ton of braces later," says Janice Slonecker Berman, a Portland, Ore., athletic-apparel executive whose 8-year-old daughter, Bailey, had braces put on six top teeth in August to correct a crooked front tooth. Bailey's braces cost $900, about half of which was covered by insurance.

Not too long ago, braces on an 8-year-old was almost unheard of. "Fifteen years ago we rarely saw kids until they were teenagers," Dr. Graber says. "We didn't recognize how beneficial early guidance could be." The efficiency of early orthodontic treatment has been a much-studied topic in places with public health services, particularly in Scandinavia, says Cameron Jolley, a Cedar Hill, Texas, orthodontist.

In the U.S., the shift to earlier treatment dates back to around 1990, the year the orthodontists association began encouraging the screening of 7-year-olds, with magazine ads and videos aimed at parents. Better diagnostic technology also has led to more early treatment. Increased insurance coverage has played a role, too.

Early treatment makes sense for an underbite or a narrow upper arch, problems that are easier to correct while the jaw is still growing. Treating patients as young as 7 or 8 years old with a "palatal expander" widens the upper jaw, so the upper teeth line up better with the lower teeth. This may make the second round of treatment, when the patient is a teenager, quicker and easier. Kids with crossbites also may benefit from such early treatment, although they too may still need a second round.

For one of the most common conditions—a Class II Malocclusion, commonly known as an overbite, "overjet" or buck teeth—studies indicate there aren't measurable benefits to early treatment. Starting treatment early for this condition usually means a second phase of

treatment is coming and with no guarantee it will be any easier than without early treatment. For this condition, early treatment also usually means longer overall treatment time and a higher bill at the end.

3.6

Millions of children, age 17 and under, who underwent orthodontic treatment in 2008, a 46% increase from 1998

73%

Portion of new patients in 2008 with dental insurance benefits for orthodontics, up from 61% in 2006 and 54% in 1996

9,680

The number of practicing orthodontists in 2008, up 18% from 1989

2

Average length, in years, of orthodontic treatment

Source: the American Association of Orthodontists

Since 1990, three randomized clinical trials—at the University of Florida involving 261 children, at the University of North Carolina involving 166 children and at the University of Manchester, England, involving 174 children—found early treatment of Class II Malocclusions was less efficient than treatment that began in adolescence.

In a two-phase, 10-year study published in 1998 and 2004, the North Carolina researchers found about 75% of patients treated early with either headgear or a functional appliance, like braces, showed improvement. But after a second phase of fixed-appliance treatment for both the previously treated patients and untreated controls, the researchers found early treatment had little effect on treatment outcomes (measured as skeletal change, alignment and occlusion of teeth) or on the length and complexity of treatment.

Children who had early treatment did spend less time, on average, in the second phase of treatment. But taking both phases into account, their total treatment time was considerably longer. At the end, only small differences were noted in front-to-back jaw position between the groups.

"There is no doubt about this conclusion," says Gregory King, professor of orthodontics at the University of Washington, Seattle. "It is no more effective to do it early than later. You end up in the same place."

Most orthodontists suggest early intervention only when they think it will benefit the patient, Dr. King says. It can be argued, though, that some treatment is elective, not mandatory, he adds. "I have a personal sense that more gets done than is necessary."

View Full Image

John Clark for The Wall Street Journal

Bailey Berman expects to get her braces off early next year.

For parents, the tricky part is figuring out when early treatment is worthwhile, and when it is simply more time and money spent. Sometimes there are psychological reasons for correcting crooked or buck teeth early: A child may be getting teased, or a parent may worry the teeth will be knocked out.

Kate Heald, a 39-year-old mother in Natick, Mass., was shocked when the orthodontist said her daughter Rose, then seven, should get braces. "We hadn't seen any second-graders walking around with braces at her school," Ms. Heald says. Rose had crowding and an overbite, causing her teeth to stick out a little.

After three days in the braces, Rose's teeth started to look better, Ms. Heald says. After 10 months, including treatment with a semi-permanent wire,and a cost of about $3,500, Ms. Heald says Rose's teeth are lined up perfectly. But the orthodontist says her daughter will probably need braces again in adolescence. "It's not your profession. You want them to have a beautiful smile," Ms. Heald says. "But it seems crazy to make them go through it twice."

Michelle Parven, 41, an art teacher also from Natick, Mass., says her son Will was in third grade when he was referred to an orthodontist located in the same office as his dentist. The orthodontist recommended braces. "I thought, 'Isn't that awfully young?' " Ms. Parven recalls. One year later, she got a second opinion. An orthodontist told her Will had an underbite and should get a palatal expander; he would need braces again at around 13, for a total cost of about $3,000. "I feel like orthodontics is a money maker and some take advantage of that," Ms. Parven says, adding she is happy she went with the second recommendation.

Orthodontists say they do feel pressure to treat early—from parents and kids. "We aren't trying to grab business," says Cynthia Beeman, associate professor of orthodontics at the University of Kentucky College of Dentistry in Lexington. "It is in the culture now that kids want to look like celebrities."

Write to Nancy Keates at nancy.keates@wsj.com

A Skeptical Parent's Guide to Orthodonture

Don't be shocked if your first-grader is referred to an orthodontist. Here's a glossary of some common appliances and treatments.

Palatal Expander

What It's For: A severe crossbite. Patients whose upper jaw isn't wide enough for the lower jaw.

What It Does: Widens the upper jaw so upper teeth line up better with lower teeth. Also allows teeth to straighten out, with or without braces, keeping more of the adult teeth intact. Expanders are either

permanently fixed in the mouth for several months, or they are removable. When turned with a key, a screw in the center of the expander puts gradual outward pressure on the upper jaw's left and right halves, causing more bone to grow between the two halves. Side effects may include pain if turned too aggressively, headache, excess saliva and temporary speech impediments, such as lisps and garbling.

Early Treatment? In some cases. Studies indicate there's a strong argument for early treatment when the desired shift in the jaw is lateral. When the desired shift isn't lateral, treatment can wait until closer to adolescence. Also, in many cases an expander to reduce crowding can wait. Braces may still be needed later; an orthodontist can't know until permanent teeth come in.

Cost: $1,100 to $3,000 (sometimes the fee includes braces if needed later)

Braces

What They're For: An anterior crossbite, when one or more teeth on top are behind teeth on the bottom (an underbite); buck teeth (an overbite); crooked teeth; spacing.

What They Do: Move teeth. Kids with baby teeth who get braces usually get what's called "two by four"—braces on the first permanent molars in the back and the four incisors in the front, resulting in two bands and four brackets. Sometimes additional teeth are included in the braces to give more support for tooth movement.

Early Treatment? In some cases. Studies indicate early treatment with braces is effective for anterior crossbites and helps prevent damage to teeth and supporting structures. But for overbites, early treatment is no more effective than waiting for the adult teeth tocome in and treating all at once. Orthodontists, though, say there may be psychological reasons for treating early.

Cost: $900 to $5,000

Headgear

What It's For: To correct an overbite or buck teeth.

What It Does: Pushes upper teeth back; prevents upper jaw from growing forward by holding upper teeth and jaw while lower jaw grows. It's usually worn 10 to 14 hours a day for one to 12 months.

Early Treatment? Not usually. Studies indicate no measurable benefit from early treatment of this type.

Cost: $2,000 to $4,000

Face Mask

What It's For: A severe anterior crossbite, or underbite with the lower jaw outgrowing the upper jaw

What It Does: Sometimes called a "reverse pull headgear," it pulls the jaw and teeth forward to encourage growth of the upper jaw. It looks a little like a catcher's mask, with a face frame and a head cap that are attached by rubber bands or elastics. It's usually worn 14 to 16 hours a day for 12 to 18 months.

Early Treatment? Yes. There is strong evidence that this can make the jaws more even when used while the patient's jaw is still growing and can help avoid surgery later.

Cost: $2,000 to $4,000

Extraction

What It's For: Severe crowding

What It Does: Serial extraction involves pulling baby teeth to speed up the eruption of permanent teeth, usually the pre-molars, which will ultimately be pulled out as well. It eases the entry of adult teeth and in most cases braces will be needed.

Early Treatment? Yes.

Cost: $200 to $500

Source: Cameron Jolley, WSJ reporting. Prices include care by the orthodontist and cost of appliances

Add a Comment

JOURNAL COMMUNITY

We welcome your thoughtful comments. Please comply with our **Community rules**. All comments will display your real name.

Want to participate in the discussion?

REGISTER FOR FREE

Or log in or become a subscriber now for complete Journal access.

Track replies to my comment

Go to Comments tab

CLEAR POST