The Disposable Diaper Dilemma

BY ANNE S. MAZAR

One of the most fulfilling and memorable times in many people’s lives is the addition of a new baby to the family. But with this precious gift comes dirty diapers. As most parents will resoundingly agree, changing diapers is a smelly, messy and unrewarding task. Disposable diapers were developed in the early 1960s to make this job easier, and currently 90 percent of all diapers used in the United States are disposables. Unfortunately, tossing a dirty disposable in the garbage may seem to make it disappear, but disposables leave serious environmental problems, dollars wasted in clean-up, and potential health hazards. Fortunately the alternatives are not as bleak as many people think, especially since they help to make the world a cleaner and healthier place to live.

The Environmental Hazards of Disposables

First the bad news. Americans contribute much more than their share of the world's solid waste problem. The U.S. comprises less than six percent of the world's population, yet it contributes 33 percent of the world's trash! In addition to the volume of garbage produced, our landfills lack the ingredients needed for materials to decompose: oxygen, light and water flow.

According to Carl Lehrburger's 1987-88 study, "Diapers in the Waste Stream," 18 billion disposable diapers were discarded in 1988 and most of them ended up in landfills. By weight, this is 414 tons of dirty disposable diapers discarded every hour. No other single consumer product, except for newspapers and beverage and food containers, contributes more to the solid waste problem. Disposable diapers currently represent two percent of total landfill space, a percentage that is increasing due to the recycling of many other materials no longer making it to landfills.

The 1.3 million tons of wood pulp required to manufacture disposable diapers is a tragic waste of trees. And the recycling of this paper is not cost-effective or practical at this point because of the plastic and the human waste on the diapers, though about sixty percent of the diaper is made from wood pulp.

Besides the paper, the plastic outer cover on each disposable diaper can take up to 500 years to decompose in a landfill. The plastic is also made from a non-renewable petroleum, and the manufacturing process produces solid waste. This is a terrible legacy to leave our children who currently wear these diapers.

With public pressure mounting to improve the solid waste problem, Proctor and Gamble, the maker of Pampers and Luvs disposables, is responding with a project to find out if it is feasible to recycle them. A pilot project is being tried with 1,000 families living in Washington, Minnesota and Wisconsin. The families are saving their dirty disposables in plastic garbage bags and putting them out to the curb for pick-up each week. The diapers are then transported to a station where they are separated into different parts, sanitized and recycled into items such as cardboard boxes and flower pots.

The Health Risks of Disposables

There are also potential health risks to children who wear disposables. One concern is the bleached paper used. When bleach is combined with wood pulp an array of chemicals are produced, including dioxin, which the Environmental Protection Agency considers the most toxic of all the cancer-linked chemicals. Some studies have found trace levels of dioxin in disposable diapers. In Europe, almost all disposable diapers sold are virtually unbleached because of public concern. The major U.S. diaper manufacturers supply a good portion of the unbleached disposables to the European market, but sell bleached versions of the same diapers in the U.S.

Another concern involves the chemicals, such as the polycrylates, that make the disposable diapers super-absorbent. Little is known concerning the transfer of these chemicals to a baby's skin, especially when there is diaper rash present. Disposable diapers are not regulated by the Food and Drug Administration and there have been no long-term studies done on the migration of these chemicals to the sensitive reproductive organs of babies who wear these diapers 24 hours a day for two to three years.

Parents take note! One baby equals 6000 disposables—or 36 cloth diapers.
Disposable diapers also pose a public health threat. The focal matter can carry more than 100 different viruses, including polio and hepatitis from vaccine residues, threatening both sanitation workers and society at large. Fecal matter in the disposable diapers should be properly disposed of in a toilet first, but as many disposable users will admit, this is rarely done.

The Alternatives?
Then there are the so-called biodegradable diapers. The plastic on these has between six and 15 percent of a cornstarch derivative added, which—theoretically—will be attacked by microorganisms in landfills to break the plastic apart. Strong controversy remains as to whether or not these plastics really degrade or whether they just break down into smaller pieces of pollution. Furthermore, biodegradables use the same amount of unrecyclable wood pulp and plastic as nondegradables, and neither will decompose in a sealed landfill. It's fair to say that biodegradable manufacturers may be fooling environmentally-concerned parents into believing that they are helping the environment. Worse, they reinforce the use-and-throw-away mentality which is ultimately what we need to move away from.

The Environmentally-Sound Alternative
Now for the good news. At this point, cloth diapers are the best solution, with no landfill waste and no waste of timber resources. There is minimal plastic production (only for the reusable pants put around them), and minor sanitation and health risks. Cloth diapers can be used 100-200 times and then retired into lint-free rags. And, luckily, cloth diapers today don't have to mean leaky plastic pants and sharp diaper pins—there are helpful new options including nylon covers, velcro fasteners, all-in-one diaper/cover combinations, and diapers that fit snugly around the legs to hinder leaking. Diaper services can make this choice even more attractive.

Cloth diapers not only lessen impact on the environment, they also save money. Assuming a child wears eight diapers per day for two and a half years, the savings would be $1249 per child, according to a 1989 report entitled "Diaper Wars," that appeared in Environmental Action Magazine. This includes the cost of 84 diapers, electricity, detergent, water and depreciation on the washer and dryer. According to the same report, using a diaper service would save about $558 per child per year.

Furthermore, the hidden expense of what the U.S. spends to discard disposable diapers—about $300 million per year—could be eliminated by using cloth diapers. That's eight cents for every disposable diaper. Disposables are expensive, both personally and environmentally.

One concern about diaper services is that the chemicals used to clean the diapers thoroughly—given the volume of diapers and the mixing of diapers from different households—may remain on them. Though, according to Dr. Joseph Sherrill, a laundry chemical consultant in Chicago, any chemical residues can be eliminated by using cloth diapers. Bleaches used, however, effectively kill any live viruses present.

Decisions, Decisions
At present, cloth diapers are the most cost-effective and environmentally-sound alternative to disposables. However, there are some hurdles aside from laundering. Cloth diapers may not be accepted in day care situations. They can also be difficult when travelling. Additionally, the major disposable diaper companies are working fast on public relations campaigns to justify the use of disposable diapers to consumers, playing down their negative impacts and overstating the prospects of recycling them.

An option many conscientious consumers choose is to use cloth diapers at home, and biodegradables when travelling or for supplying to day care staff. In doing so, concerned individuals can launch their own personal campaigns to promote the benefits of cloth. By setting examples, encouraging day care centers to subscribe to diaper services, and sharing information on the down-side of disposables, we can make a significant personal impact on the legacy we leave our children.

Using a diaper service saves $558 per child per year over disposables—not counting hidden environmental costs.

To find a diaper service in your area, contact: National Diaper Service Association/(800)462-6237

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