

Sustainable Menstruation

The discussion of menstruation is still a taboo topic, but talking about it is just as important as talking about how to be more eco-conscious when taking care of the byproducts of menstruation—the blood, tissue, and stains. Menstruation starts from 11 to 14 years of age in biological females, and usually happen every month until around 50 years old, when menopause occurs. According to Om Prakash, a program manager of Uger Reusable Sanitary Napkins in India, “Men think menstruation is an issue for women and women think it’s related to sex. Thus, it’s often not discussed, especially in the rural areas and small towns” (Rakheja). However, the problem of sustainable menstruation practices don’t just apply to females; it is a worldwide problem that doesn’t just affect a single demographic. Since such a significant portion of the human population menstruate, there is also a lot of waste produced. These include the disposable tampons, pads, pantyliners, and all the plastic integrated within the packages of those products.

The environmental impacts of single use menstrual products leave enormous landfill and pollution concerns. “It has been estimated that each woman uses 11,000 menstrual products in her lifetime. Those 11,000 items—disposable pads, tampons and panty liners—are landfilled, period” (Aldair). According to the Australian Broadcasting Corporation, “every pad takes around 500-800 years to biodegrade” (Edraki). Additionally, human waste products also contain plastic film, pulp, gel granules and chemicals. They break down in landfills to release methane gases and contributing to global warming (“Nappies are a waste”). According to another study on human waste product degradation, tampons in particular “showed very little decay over the two-year period [of the study]” (Bridle 1). Due to the lack of discussion about menstruation practices, people also flush tampons which contributes to human waste problems in oceans. The Marine Conservation Society notes that “4.8 pieces of menstrual waste are found per 100 metres of beach cleaned. For every 100m of beach, that

amounts to 4 pads, panty-liners and backing strips, along with at least one tampon and applicator” (Ringshaw). Not only do the synthetic materials that disposable menstrual products take an extremely long time to break down, a significant portion of the waste ends up polluting our oceans and cycling back into our communities, along with the harmful waste products they soak up.

Compared to single-use menstrual waste products, reusable products save an enormous amount of natural resources and waste production, which benefits the environment. There are a plethora of reusable alternatives, which have longer lifespans and reduce waste degradation time in landfills and out of them. Some reusable products to consider are machine washable sanitary pads and period panties. These are generally made of fabric, so they can be shredded and composted very easily. Period panties in particular incorporate a washable pad system directly into underwear, and "the crotch lining can hold up to 1.5 tampons' worth of blood" (Brickell). Another reusable product to consider are menstrual cups, which are generally made of medical silicone and inserted into the vaginal canal during a period. Period panties and reusable pads are generally good up to two or three years, whereas cups can last anywhere from 6 months to 10 years (Scaccia). Although Menstrual cups are not biodegradable, they can easily be recycled and repurposed. According to a material scientist from the Ruby Menstrual Cups, burning an old cup is also safe. It will “produce some CO₂ but in a tiny scale, since the quantity of silicone used for one menstrual cup is so small” (Thiele). Both washable products and menstrual cups only leave the biological waste that humans produce when it is time to change them, which significantly minimizes users’ carbon footprints.

In addition to environmental benefits, reusable menstrual products are also more beneficial in terms of health, costs, convenience, and mission. Health can be significantly improved with the use of reusable products, since reusables generally don't include harmful chemicals in their manufacturing process. Chemicals such as dioxins, which are in a class of **toxic** chemicals known as persistent organic pollutants, are used to make disposable human waste products including menstrual products and diapers. Dioxins can be found as long as 20 to 30 years after their exposure, and is stored in vaginal fatty tissue (Aldair). By using reusable menstrual products, old pads, tampons, and other single-use menstrual waste products don't have to sit around in a trash can either, which decreases spread of harmful waste in air circulation. Reusables also decrease the need to purchase large amounts of pads every month, and although they may be more expensive initially, saves money in the long run. According to Organicup, the use of a menstrual cup is equivalent to using over 528 pads and tampons ("Making a Positive Impact"). Reusable menstrual products are also more convenient than disposable ones in terms of convenience. "While a reusable sanitary pad is recommended to be changed in every four to five hours, a menstrual cup needs to be removed-washed-reinserted every eight hours" (Rakheja). Along with being more environmentally beneficial, reusables are often partnered with initiatives for social good. For instance, the menstrual cup that I use is from the company Saalt, which donates 2% of their proceeds to period care and education initiatives ("Saalt Gives").

I was heavily inspired to develop a two part project to encourage environmentally conscious menstruation practices. Part one involved the creation and distribution of an infographic. The infographic has a section dedicated to statistics derived from the research conducted by the essay, as well as a list of different kinds of menstrual products and their ranked sustainabilities. The infographic simplifies and presents visualized statistics about menstrual waste impacts on the environment so they are easy to understand. It is easily distributable as an image file, so it can be shared to reach and

educate a larger audience. Part two involved the development of a fictitious menstrual cup called Jellicup. Jellicup is intended for teens and those who may have just started their period. I targeted this audience because when people start using sustainable menstrual products early, they are more familiar with and less scared of the product and process. The cup is designed to be more malleable than other menstrual cups in the market, which makes it more approachable in terms of insertion, and more comfortable, especially for younger audiences. In terms of the branding of the cup, the typeface used in its logo is “Quicksand,” which is a sans-serif font with rounded edges that appear welcoming to the audience. The bright colors and illustrations would also be eye-catching on shelves. Jellicup uses jellyfish illustrations with the cup, which references its ocean cleanup initiative tied to its business model. 4.8% of all proceeds earned from the sale of Jellicup will be donated to ocean cleanups, which is a reference to the 4.8 pieces of menstrual waste found per 100m of beaches found by the Marine Conservation Society (Ringshaw).

When we choose reusable menstrual products, we are choosing to better the environment. Along with reducing waste that enters our landfills and potentially the oceans, reusable menstrual products can cut costs on single-use purchases, as well as decrease health risks. By replacing our habits of using single-use items in our everyday lives, we can greatly reduce the amount of environmental damage caused by them. I was inspired to develop the Jellicup to increase the awareness of sustainable menstruation practices. Only by reducing frequently repeated eco-unfriendly behaviors can we combat the ever growing problem of environmental damage by humankind.

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