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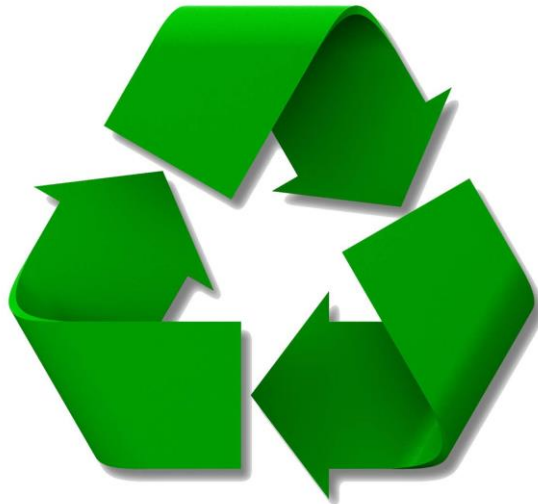
Recyclable Surgical Gloves

Group: Fruit Loops

Emily Haines, Sarah Richmond, Teresa Pell



- Gloves used during surgery
- Gloves used during checkups
- Medical-grade porous level
- Excessive amounts of waste
- CUT DOWN on medical waste one product at a time





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What are surgical gloves
made of and how are they
bad for the environment?



Material in Surgical Gloves → How Long to Decompose⁶

- Latex → *4 years to decomposition*
- Nitrile rubber → *Never decomposes*
- Vinyl → *Never decomposes*
- Neoprene → *Never decomposes*



- Passion for the innovating medical field
- Interest in recyclable resources
- Research the future and reality of recyclable surgical gloves
- Inform about the excess waste the US is producing each year through medical waste





Medical Community

- progression
- incentive?
- solar panel tax incentive

Everyday Citizens

- allergies
- more natural ingredients

Environmental Activists

- help cut down on waste in landfill
- cut down on size of landfill
- win for the Earth!



Those in the medical profession

- new product=new feel
- different elasticity
- different texture
- no effect on safety

Medical Facilities

- increase recycling bins
- new trash system
- efficient transport



Ex #1:

Wising Up to Healthcare Waste: Recycling₃

- South African initiative
- Obstacles with transportation
- Challenge of extra space

Ex #2

Reducing Medical Waste₄

- Study conducted for equipment kit
- Real-life medical professionals
- Reusable equipment had higher score



Ex #3

Kimberly-Clark Nitrile Glove Recycling Program₅

- The first large scale recycling effort for nontraditional cleanroom waste
- After the products are collected, they are turned into raw materials and used to create useful, eco friendly consumer products, such as plastic Adirondack chairs and benches, bulk plastics and other items





CHALLENGES

- Space; enough bins
- Transportation
- Willingness of medical field to make the shift
- Cost of recycling overcomes the cost of not recycling

BREAKTHROUGHS

- Innovation in South Africa
- Kimberly-Clark Nitrile Glove Recycling Program
- Case studies showing positive reaction
- Feasible doesn't mean not effortless



<https://www.youtube.com/watch?v=Ehls4hAHAD4>

Waste Savings Using STERLING® 9.5" Nitrile Gloves¹			
	Cases per Month	Saving: Lbs per Year	Saving: Tons per Year
WASTE	25	2,637	1.2 
	50	5,274	2.4 
	100	10,548	4.8 
	150	15,822	7.2 
	200	21,096	9.6 

"Kimberly-Clark Nitrile Glove Recycling Program." *Sustainability*.University of Santa Cruz, 18 Aug. 2016. Web. 28 Sept. 2016.



Questions?



References

1. G., & Marchetti, B. (2013). Medical waste management: A case study in a small size hospital of central italy. *Strategic Outsourcing: An International Journal*, 6(1), 65-84.
2. Peter Ikome Kuwoh Mochungong Gabriel Gulis Morten Sodemann, (2012), "Clinical waste incinerators in Cameroon – a case study", *International Journal of Health Care Quality Assurance*, Vol. 25 Iss 1 pp. 6 – 18 (PE)
3. "Wising Up to Healthcare Waste : Recycling." *Resource*. 18.3 (2016): 45. Print.
4. Conrardy, Julie, Mary Hillanbrand, Sandra Myers, and George F. Nussbaum. "Reducing Medical Waste." *Aorn Journal*. 91.6 (2010): 711-721. Print.
5. "Kimberly-Clark Nitrile Glove Recycling Program." *Sustainability*. University of Santa Cruz, 18 Aug. 2016. Web. 28 Sept. 2016.
6. ""How Long Does It Take Rubber to Decompose?" *Reference*. N.p., n.d. Web. 24 Oct. 2016."