



**JUST
THE
FACTS**



No Substitute for Products Made from Natural Gas & Oil: Saving Lives & Enhancing Safety During COVID

Pennsylvania's medical and public health landscape changed dramatically on March 16, 2020, when Gov. Tom Wolf ordered "non-essential" businesses in the Commonwealth to close due to increasing COVID-19 cases. A combination of uncertainty, anger, fear and eventual clarity followed as more was learned about the disease and how people could protect themselves against it.

Thousands of essential workers were vital to the effort to fight the pandemic: medical professionals who staffed doctors' offices and hospitals, store employees who supplied us with food and other essential items, trucking and delivery personnel who transported items to stores and to our homes, just to name a few.

Two additional essential items helped Pennsylvania and the rest of the nation reach a turning point - where we are returning to a degree of normalcy - and deserve to be highlighted: the natural gas and oil that are essential to the manufacture of the medical, safety and consumer products Americans use every day.

Here are the facts:

Recreational and Consumer Goods

Many Americans changed their recreational habits during COVID and opted for socially distanced adventures, resulting in a huge demand for camping gear, sporting goods and related outdoor equipment. People were also diligent about keeping everything clean, using detergent, soap, hand sanitizers, plastic food packaging and other cleaning products. The thousands of items flying off the shelves for these outdoor and indoor needs have either natural gas or oil as a primary feedstock - and there are no substitutes.

Personal Protective Equipment

The initial demand for N95 masks in the U.S. resulted in panic buying by individuals and essential medical providers, to the point that they were often not available to the average consumer. Other types of PPE, from plastic face shields to disposable medical treatment clothing, were also scarce. The fact is that all of these items are also made from natural gas and

oil, along with the plastic shields installed at stores and restaurants around the country, latex gloves used by many essential retail and medical personnel, and mass-produced masks that were eventually in sufficient supply that they were given away at entrances to many stores. There is no substituting for the role natural gas and oil plays in making virtually every type of PPE.

Emergency and Urgent Care Medical Needs

With some hospitals forced over the past year to convert parking garages into temporary care units, portions of our country's medical infrastructure faced a crisis at one time or another. People with the most serious cases of COVID required intubation with a ventilator, intravenous medicine drips and scores of specialized medical devices (see a full list of medical device shortages from the FDA here: [COVID Medical Device Shortages](#)), with most of them made possible by processing natural gas and oil.

Pharmaceuticals

A final and important natural gas and oil-based weapon in the fight against COVID focuses on pharmaceuticals: their manufacture and delivery. It is a fact that most pharmaceuticals are made through chemical reactions involving organic molecules, and petroleum is a plentiful source of those molecules. Pfizer's vaccine must be stored at ultra-cold temperatures that require carbonic ice derived from petroleum. Transportation fuel is used to fly and truck vaccines quickly across the country, and each dose is administered with a plastic syringe made possible by natural gas processing.

“Approximately 3% of petroleum production is used for pharmaceutical manufacture, but nearly 99% of pharmaceutical feedstocks and reagents are derived from petrochemicals.”

Source: Petroleum and Health Care: Evaluating and Managing Health Care's Vulnerability to Petroleum Supply Shifts" National Institutes of Health, National Library of Medicine, 2011



PIOGA published this printable, [downloadable infographic](#) in February 2020, highlighting the nearly 100 items made from natural gas and oil found in every emergency room. From stitching up a cut finger to receiving an IV bag saline drip, these products will play a critical role in medical care for the foreseeable future – and there are no substitutes.

Items in a typical emergency room

Blood pressure cuff	Overhead lamp/bulbs
Blood pressure cuff tubing	Oxygen saturation finger probe
Chair	Oxygen wall to tubing adapter
Code cart/wheels	Patient education packets
EKG Leads	Plastic patient belonging bag
EKG wire covers	Plastic slip cover for mattress
End-Tidal carbon dioxide cable	Plastic-lined pillows
Fluorescent light covers	Stethoscope label
Infectious waste container	Stethoscope tubing
IV Pole wheels and hook	Suction canister
IV pump	Suction tubing
IV pump power cord	Thermometer
Laminated charts	Thermometer probe covers
Monitor/cables	Trash bag
Nasal canula	Trash can
Ophthalmoscope	Wall oxygen dial
Otoscope	Wall suction dial
Otoscope covers	Yankauer suction

Items found in an ER code cart

AED	Needle caps
Alcohol swab packaging	Non-rebreather mask
Ambu bag	Oral airways
Atomizer	Oxygen tank dial
Code cart lock tab	Pacer pads
CPR back board	Plastic cart housing
Endotracheal tubes	Plastic cover over tip of scissors
Exam gloves	Plastic syringes
Intubation blade	Plastic tape
IV catheters	Portable suction pump
IV fluid bags	Saline flushes
IV tubing	Sharps container
Lubrication	Syringe caps
Medication ampules	Tourniquets
Medication bottles	Venti-mask
Nasopharyngeal airways	

Other medical devices used on a daily basis

Adhesive foam	Patient socks/grip bottoms
Bedpan	Peripheral venous catheter
Bleach wipe containers	Plastic boxes of gauze
Crutch pads/grips	Plastic medicine cups
Date stickers	Plastic packaging on medications
Hemovac drain	Pyxis machine
IV caps	Skin barrier packaging
Jackson Pratt drain	Sterile gowns
Medical glue	Sterile packaging
Nasogastric tubes	Sutures
Ostomy bags and appliances	Three-way stopcocks
Patient call bell	Urinary catheters
Patient room phone	Walkers/canes

The Facts

Technologies used to produce thousands of vital products made the fight against COVID winnable. Many Americans take these products for granted, but the fact remains that there is no substitute for the natural gas and oil needed to make them. Oil and natural gas is – and will continue to be – one of our most essential industries.



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