

- The price of crude oil fluctuated this week due to several developments. First, Iran said that it had no intention of holding talks with US anytime soon. Second, concerns about a trade war between the US and China are still in place, but Saudi Arabia and other producers have pumped more crude recently, alleviating doubts over supplies getting tighter. As per Baker Hughes data, the number of US oil drilling rigs rose by 10 to 869, which is the highest this year. Despite this increase, there were questions if the US production capacity could increase after EIA data showed that the crude oil output in the US fell by 100,000 b/d to 10.8 mb/d two weeks ago. Last week however, the data showed that the inventories increased by 6.8mb, which lead to a drop in the crude oil price.

Even with the slipping oil production in Venezuela and Libya, Iran's production being affected by US sanctions, as well as Saudi Arabia pumping 201,000 b/d less in July, the OPEC production for the month was up by 41,000 b/d to 32.32 mb/d. This was due to increased production in Kuwait, Nigeria and UAE. The crude price also rose after economic troubles in Turkey showed signs of abating. The crude price was not affected by the announcement by US and China about resuming trade talks.

- With President Trump reinstating sanctions on Iran, and taking effect from Nov 2018, the French oil company, Total has halted operations in that country. Total had partnered with the Chinese oil company CNPC (China National Petroleum Corp.), and Iran's Petropars Ltd. In 2016 to develop Phase 11 of Iran's South Pars Gas Field. With Total's exit from Iran, CNPC will become the lead operator. Iran has exported an average of 2.1 mb/d of crude oil last year. The goal of the US sanctions on Iran is 'reducing to zero' the revenue that country has been generating from sales of crude. While energy analysts forecast a reduction of 700,000 to 1 million barrels per day, US may not find it easy to persuade countries to cut back oil imports from Iran. Though Japan and South Korea may fall in line, the Chinese are adamant on maintaining their Iranian crude import. India has not made its stand clear, though is buying more US crude and preparing for alternative supplies. India is the second biggest crude customer for Iran and has the advantage of longest

credit repayments. More will transpire when a US delegation led by Secretary of State, Mike Pompeo, will meet the Indian officials in early September. The European Union countries, accounting for 20% of Iranian oil exports are less willing to go with the US, as they have vowed to go with the nuclear accord. Meanwhile, Iran has reduced the official prices for September sales to Asia across all grades of crude oil. Its currency has declined, and its economy is deteriorating in the wake of the sanctions.

- PetroChina Co may temporarily halt the purchase of US LNG spot cargoes to avoid US trade tariffs. Instead, it may buy LNG spot cargoes from other countries in East Asia. In February 2018, PetroChina had signed a 25-year deal with Cheniere Energy to buy US LNG and a part of that supply is expected to begin this year.

So much for the industry news this week.

### *For the lighter side this week*

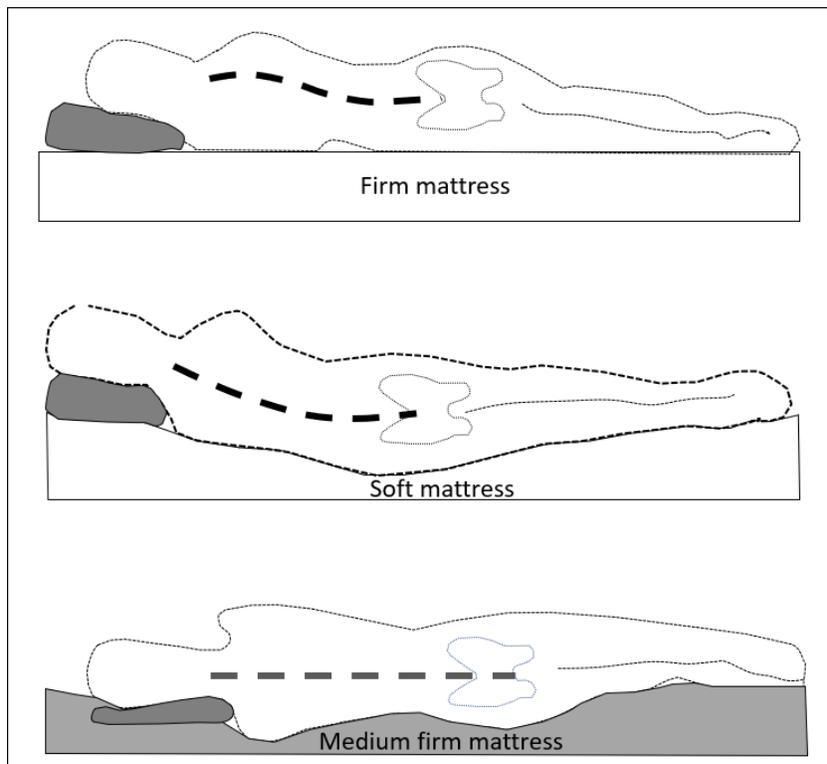
A good night's sleep is important for the human body. And we do spend close to eight hours every night on our mattresses. Many people get up every morning with a backache. What we have seen or heard over the years is that these people are advised to sleep on firm mattresses. This has been a long-time belief, and despite following this, many people still need pain killers for their problem.

Our spine is not exactly straight, rather has three curves, first in the top or the *cervical* part that supports the head, second, in the middle or *thoracic* part, and then the lower or *lumbar* part that forms the support system for the back. When we sleep, it is important we do not disturb this alignment of the curves, as pressure on any part is likely to cramp the associated muscles and result in pain.

It helps to understand what happens as we lie down on a mattress. Most mattresses are made of materials that compress, so that when we lie down on them, the weight of our body makes them sag in the middle. When you sleep on a firm mattress, your body conforms to its flatness. Usually people tend to sleep on their side, with the result that more pressure is exerted on your shoulders and hip, which inhibits fluid circulation in the body. But the important thing is that your spine is not aligned right; rather it curls downwards (top image in figure below). This posture exerts a pressure on your lower back and that is how you develop a pain there. The age-old belief about sleeping on a firm bed does not seem to help.

If the mattress is too soft, as our body sinks into the mattress, the spine curls downwards, but it is slightly more (middle image in the figure below). In fact, our bodies end up in a position exactly as in a hammock. In this case again, the pressure is exerted on the lower back, and muscles remain tense the whole night. Thus, the posture in which we are resting in the night is not letting the muscles relax, with the result is when we get up in the morning, we feel pain in our lower back and neck.

So, how do we make out if your backache is due to the mattress you have been sleeping on? If you have a back pain, when you wake up, and after stretching or exercising for a few tens of minutes it goes away, it is probably due to the mattress. Similarly, if you are not getting sound sleep in the night, and you tend to toss and turn, then it again points to the mattress. This latter case does not include the stressed condition you may be in for some reason, which can also prevent you from having a sound sleep.



More recent research has shown that too-firm or too-soft mattresses are not good to sleep on. The mattresses should be just soft or firm enough, so that when you lie down on them, they just support your body exactly as per the bends thereon, so that the spine is kept straight.

On a medium firm mattress, as you lie down on it on your side, the mattress conforms to the curves of your body, so that your body is being supported uniformly along its length, with no specific pressure points occurring anywhere (lower image in the figure above). Such a posture provides a cushion effect on the shoulders and hips, with no pressure points. The end result is that the muscles relax, and your body gets a wholesome sleep.

A mattress needs replacement every seven to eight years.

I hope you find these interesting.

So much for this week! Till the next post, stay safe and happy!