# The care and handling of newsprint.

Adapted from, "Why does newsprint turn yellow?"

By Jesse "JT" Thomas | he / they

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UBC / Musqueam



# What is paper?

Narrowly defined, paper is vegetable fibre compressed in order to create thin sheets (<a href="www.etymonline.com/word/papyrus">www.etymonline.com/word/papyrus</a>).

It is connected to the word from papyrus (Greek πάπυρος), the grass-like sedge that grows in Africa.

Paper can be made of papyrus, but also palm leaves, the bark of the mulberry and fig tree, hemp, silk, cotton, linen, recycled rag fabric, and, of course, wood pulp.

## What is newsprint?

The pulp of trees, most commonly cone bearing trees (conifers) such as pine and fir.

- Mechanical pulping: The pulp is cooked and shredded
- Chemical pulping: The pulp is treated so as to break the fibres apart.

Mechanical pulped paper can be treated to reduce its lignin content and improve it as a writing and printing surface. But treatments cost money.

The cheaper the paper, the less treatments it has gone through. But that's also what makes it possible to distribute a newspaper free of cost on a regular basis!

### So, why does it turn yellow?

Paper contains lignin. When exposed to light and oxygen, it breaks down to form water. That leaves the carbon, oxygen, nitrogen to form other things, in this case the colour yellow.

This speeds up at higher temperatures or when the lignin is slightly moisted.

TLDR: Newsprint contains lignin, which makes it turn yellow.

### What can you do to care for newsprint?

#### Conditions / Environment

- Limit fluctation in temperature, light, humidity
- Relative humidity @ 45% +-5
- Below 22 °C (Lower is better, stable is best.)

To track this, get an indoor thermometer/hygrometer. At time of writing this cost ~ \$10 Canadian.

#### **Pollutants**

- keep space free of dust and dirt (these can be acidic and increase newsprint breakdown). In other words, keep food and drink away from old material and wash your hands before handling.
- Counteract the internal pollutants (lignin!) with a pH buffer, such as tissue paper buffered with calcium carbonate).

# What do we do in the Discorder Magazine Reading Room?

- Train volunteers and staff on what we can do to care for newsprint.
- Always have someone with training in the room when material is being accessed.
- Never pick up the magazine and walk around with it.
- Never press down on creases. Old newsprint is brittle and this can damage it more.
- Always put material away after use. Put away material before taking new material out.
- Keep boxes off the floor.

#### References

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