In Europe, Swedish experts decided against the continued use of iophendylate based on their negative clinical experiences with the compound.

In the 1930s and 40s, neuroradiologists based in Stockholm, working with the famous neurosurgeon Olivecrona saw patients from all over the world who had previously undergone oil-based myelography and had sustained arachnoiditis as a result; they also had residual dye in the spine and head.

It appears that as early as 1935 a decision not to use oil-based contrast media was taken by leading Swedish neuroradiologists.

Despite these warnings and the FDCA's 1938 requirement for obtaining FDA pre-market approval through demonstration of safety, in 1940, a company called **Lafayette Pharmacal** began manufacturing a new dye that came to be known as Pantopaque.

They used material supplied by the **Eastman Kodak Company**, material that was originally designed for use in photographic processing. This contained benzene (now recognised as highly carcinogenic), hydrochloric acid, sulphuric acid and potassium permanganate.

This material was known to melt polystyrene and if spilt on laboratory floors, would eat into them.

Pre-licence studies of the new dye, **ethyl iodophenylundecylate (iophendylate),** demonstrated chemical meningitis similar to that seen by various authors such as Markovich et al., Garland (who described granulomatous reaction to Lipiodol) (
[1]
) and Craig (
[2]

). Opinions differed as to the extent of reaction to poppyseed oil.

Strain and Warren had already conducted animal studies on the new dye, which had originally been synthesised by Plati, in 1937-8.

These clearly demonstrated that the compound was not absorbed by the body, but remained permanently encysted within the spinal column and could thus trigger inflammatory reaction and fibrosis.

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[1] Garland LH Radiology 1940; 35: 467 The Effect Of Iodized Poppyseed Oil on the Spinal Cord and Brain

[2] Craig RL Arch. Neurol & Psychiatr. 1942; 48: 799 Effect of Iodized Poppyseed Oil on the Spinal Cord and Meninges