CLINICAL STUDY RESULTS

A Study to Learn About the Effect of Food on the Levels of Elafibranor in the Blood of Healthy Volunteers

This study shows that elafibranor can be taken with or without food.

The results shown in this summary are from one clinical study. Other clinical studies may produce different results.

This lay summary has been produced by a company independent of Ipsen. It has been reviewed by employees of Ipsen, and a group of participants or people from a non-scientific background.

CLIN-60190-452
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What was the study about?

Elafibranor has been developed to treat a condition known as primary biliary cholangitis (PBC). PBC is an autoimmune condition, which means the body's immune system mistakenly attacks its own healthy cells.

PBC affects the small bile ducts of the liver (the tubes that supply 'bile', a fluid which helps in digestion). As a result, bile accumulates in the liver causing inflammation, damage, and eventually liver injury and scarring (fibrosis). In advanced cases, a liver transplantation may be necessary.

In this study, researchers wanted to understand how eating affects levels of elafibranor, as well as the main product elafibranor converts to in the body (called 'metabolite GFT1007') and which circulates in the blood. The metabolite GFT1007 is essential for the activity of elafibranor in the body, so the effect of food on both elafibranor and GFT1007 is important to understand.

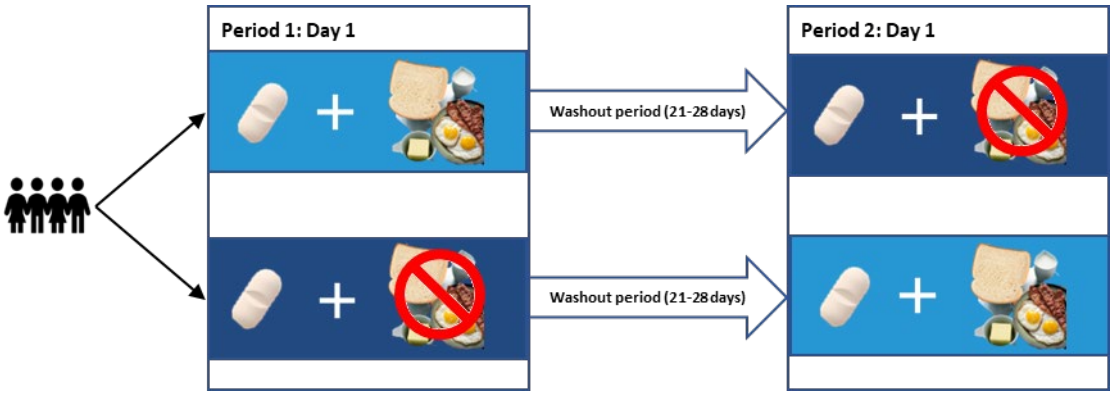
Participants were asked to take elafibranor on two occasions, once under 'fasted' conditions (on an empty stomach) and once under 'fed' conditions (after eating a meal). The findings of this study will help to advise patients whether elafibranor should be taken during a meal or not.

> The aim of this study was to learn about the effects of eating on the levels of elafibranor in the blood of healthy participants.

This study took place between October 2022 and January 2023 at one study site in France.

This was an "open label" study, which means that both researchers and participants knew what treatment participants were receiving.

Study Design:



Who took part in this study?

In the first part of the study, 34 participants were 'randomised' (assigned randomly using a computer program) to take elafibranor either after a meal or on an empty stomach. One participant left before the study was finished, so a total of 33 participants completed the study.

34
HEALTHY VOLUNTEERS

16
MEN

18
WOMEN

30 YEARS
AVERAGE AGE

To be eligible to take part in the study, participants had to:

- be healthy
- be 18 to 45 years old
- have normal results in laboratory tests, blood pressure, and electrocardiogram (ECG)
- be within a certain weight range

Participants were not eligible to take part in the study if they had:

- a history of certain medical conditions
- a history of cancer
- a major operation within 28 days before entering the study

What treatments were used?

Participants received elafibranor orally (by mouth). The first group took elafibranor in a 'fed condition' (after eating a high fat, high calorie meal); the second group took elafibranor in a 'fasting condition' (after not eating for at least 10 hours).

After a 'washout' period of 21-28 days (to allow their first dose of elafibranor to completely leave their system) the groups switched treatments: the first group took elafibranor on an empty stomach and the second group took elafibranor after eating a meal. One participant took elafibranor after eating, but left before taking it on an empty stomach, so a total of 33 participants completed the study by taking elafibranor both after eating and on an empty stomach.

Participants' health was monitored at certain time points up to the end of the study.

What was the effect of food on the levels of elafibranor in the blood of healthy participants?

To answer this question, researchers collected blood samples at certain timepoints over 10 days from the participants after they had taken elafibranor, to be able to measure both elafibranor and GFT1007 levels in the body over time.

The study showed that, on average, the maximum (highest) level of elafibranor in the participants' blood on day 1 (the first day they took elafibranor) was 50% lower when it was taken after eating compared to an empty stomach. The maximum levels of metabolite GFT1007 on day 1 were 30% lower when taken after eating.

However, the study also showed that, on average, the *total* levels of elafibranor in the participants' blood over a 10-day period was only slightly lower (15%) when it was taken after eating compared to an empty stomach, and importantly, there was no change to the total levels of metabolite GFT1007 over the 10-day period.

Overall, the study showed that food had little or no effect on the total level of elafibranor in participants' blood.

How did the treatment make participants feel?

During clinical studies, participants are asked to report if they feel unwell, experience any kind of medical event, or notice anything different about their bodies. These are called 'adverse events'. Researchers record *all* adverse events reported by participants, whatever the cause.

If the study doctor thinks an adverse event may be related to the study treatment, it is called a 'side effect'. A side effect is considered 'serious' when it is life-threatening, causes lasting problems, or leads to hospitalisation.

No participant in this study experienced a serious side effect.

- Side effects that are *life-threatening*, cause lasting problems or require an individual to go to the *hospital* are considered *serious*.
- No participant experienced a serious side effect.

Overall, 5 out of 34 participants (15%) experienced side effects. One participant experienced nausea after taking it after eating and stomach pain after taking it on an empty stomach, and so is counted in both groups:

- **2 out of 34 participants (6%)** experienced a side effect after taking elafibranor on an empty stomach.
- **4 out of 33 participants (12%)** experienced a side effect after taking elafibranor after eating.

Elafibranor was generally well tolerated by participants. No participant stopped taking part in the study because of a side effect. None of the side effects reported were severe enough to prevent the participants' daily activities.

The most commonly reported side effects are shown in the table below, both as a percentage (%) followed by the actual number of participants in the group (e.g. 3%, 1 out of 34).

Side Effects	**Elafibranor** after eating **(34 Participants)**	**Elafibranor** on an empty stomach **(33 Participants)**
Headache	3% (1 out of 34) 	9% (3 out of 33) 
Stomach pain	0% (0 out of 34)	3% (1 out of 33) 
Feeling sick (the desire to vomit)	3% (1 out of 34) 	0% (0 out of 33)

More information

To learn more about this study, please visit the clinicaltrials.gov website and search for study NCT05564208.

For more information about current treatments available, please speak to your healthcare provider. If you have any questions about this study, please contact the sponsor, Ipsen at:

clinical.trials@ipsen.com

Future research

There is no future research planned on this topic.

Study identification and other information

Full study title: A Phase I, Open-Label, Randomised, Balanced, Single-Dose, Two-period, Two-Sequence Crossover-Design Study to Evaluate Effects of Food on the Bioavailability of 80 mg elafibranor (IPN60190) To-be-marketed Tablet Formulation after Single Oral Administration in Healthy Adult Participants.

STUDY NUMBERS: Europe: 2022-001883-91 | United States: NCT05564208 |

Protocol: CLIN-60190-452.

We thank all the volunteers who took part in this study. Without their support, advances in treatments for medical conditions would not be possible.

We would also like to thank the people who took the time to review this document to make it easier for a general audience to read.