

The **IFL chemotherapy regimen** is a combination chemotherapy protocol used primarily to treat **metastatic colorectal cancer**. It includes three drugs: **Irinotecan**, **Fluorouracil (5-FU)**, and **Leucovorin (folinic acid)**.

IFL Regimen Components

1. Irinotecan (CPT-11)

- **Type:** Topoisomerase I inhibitor
- **Action:** Prevents DNA from unwinding, leading to cell death.

2. Fluorouracil (5-FU)

- **Type:** Antimetabolite (pyrimidine analog)
- **Action:** Inhibits DNA synthesis.

3. Leucovorin (Folinic acid)

- **Type:** Chemotherapy modulator
 - **Action:** Enhances the binding of 5-FU to its target enzyme, increasing effectiveness.
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Typical Dosing Schedule (Weekly Regimen)

Given once weekly for 4 weeks, followed by 2 weeks of rest (6-week cycle):

- **Day 1 of each week:**
 - Irinotecan IV over 90 minutes
 - Leucovorin IV
 - 5-FU IV bolus (immediately after Leucovorin)
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Administration

- All drugs are typically administered **intravenously (IV)**.
 - Often given in an **outpatient** setting.
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Common Side Effects

- **Gastrointestinal:** Diarrhea (can be severe), nausea, vomiting
 - **Hematologic:** Neutropenia, anemia, thrombocytopenia
 - **Fatigue**
 - **Mucositis**
 - **Alopecia (hair loss)**
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Comparison with FOLFIRI

- IFL was commonly used before **FOLFIRI** (Folinic acid, 5-FU, Irinotecan with infusion) became more widespread.
 - FOLFIRI includes **continuous infusion 5-FU**, which has shown **better tolerability and efficacy** than bolus 5-FU used in IFL.
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Clinical Use

- Now largely **replaced by FOLFIRI or FOLFOX** in modern colorectal cancer treatment protocols.
 - Still of historical and comparative interest in clinical research.
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