Understanding the Peritoneal Cancer Index (PCI)

The **Peritoneal Cancer Index (PCI)** is a scoring system used by surgeons and oncologists to measure how much cancer is present within the abdominal cavity. Specifically, it evaluates how extensively cancer has spread across the lining of the abdomen, known as the **peritoneum**.

This scoring system is commonly used when assessing cancers that can spread within the abdomen, including **appendix cancer, colorectal cancer, stomach cancer, and ovarian cancer**. The PCI helps doctors determine whether a patient may be a good candidate for treatments such as **cytoreductive surgery (CRS)** and **hyperthermic intraperitoneal chemotherapy (HIPEC)**.

How the PCI Score Is Calculated

To determine the PCI score, the abdominal cavity is divided into **13 separate regions**, numbered from 0 to 12. Each of these regions is carefully evaluated to identify the largest tumor deposit present.

Doctors then assign a **lesion size score (LS)** for each region based on the size of the tumor found there.

- **LS-0:** No visible tumor is detected in that region.
- **LS-1:** Tumor deposits are present but measure **less than 0.5 centimeters**.
- **LS-2:** Tumors measure **between 0.5 and 5 centimeters**.
- **LS-3:** Tumors are **larger than 5 centimeters**, or there is widespread tumor coverage within that region.

Once each of the 13 areas has been evaluated, the scores are added together. The combined total produces the **final PCI score**, which can range from **0 to 39**.

What the PCI Score May Suggest

The PCI score helps doctors understand the **overall extent of disease within the abdomen**, which is important when planning treatment.

- **Lower PCI scores (often around 10–12 or below)** generally indicate that cancer involvement within the abdomen is more limited. In many cases, this increases the likelihood that surgeons may be able to remove all visible disease during cytoreductive surgery.
- **Higher PCI scores (often above 15–20)** suggest that cancer is more widely distributed throughout the abdominal cavity. In these situations, achieving a complete surgical

removal of disease may be more challenging. Doctors may sometimes recommend starting with treatments such as chemotherapy before considering surgery.

It is important to remember that the PCI score is **only one part of the overall treatment decision**. Other factors—including tumor type, tumor grade, a patient's overall health, and surgical expertise—also play important roles in determining the best course of care.

Peritoneal Cancer Index (PCI) Regions

The abdomen is divided into **9 abdominal regions plus 4 small bowel regions**, for a total of **13 regions (0–12)**.

Upper Abdomen

Region	*Location*
0	Central abdomen (around the umbilicus)
1	Right upper abdomen (under right rib cage – liver area)
2	Epigastrium (upper middle abdomen)
3	Left upper abdomen (under left rib cage – spleen area)

Middle Abdomen

Region	*Location*
4	Left flank
5	Right flank

Lower Abdomen

Region	*Location*
6	Pelvis
7	Right lower abdomen
8	Left lower abdomen

Small Bowel Regions

Region	*Location*
9	Upper jejunum
10	Lower jejunum
11	Upper ileum
12	Lower ileum