## 精準是我的「tone」·改變你的「痛」一疼痛控制與營養素檢測

臨床的疼痛治療主要是以藥物控制及介入性治療為主,但是部分病人卻無法有效改善疼痛問題, 這種情況常會造成臨床醫病雙方很大的壓力,因此導入整合醫療的「營養醫學」己成重要趨勢。 營養素對於人體就像是精密儀器中的小齒輪,一旦其中一個齒輪不小心鬆脫,往往就會造成儀器 運轉上的錯誤,甚至可能會造成儀器損毀,雖然微小但卻扮演著舉足輕重的角色,由於不同的疼 痛特徵,對應的營養素缺乏情形並不相同,經由精確的檢驗,再客製化的補充身體所需的營養素 及治療劑量,已經成功地讓不少病人的疼痛情形得到相當的改善,因此營養素檢測扮演重要關鍵。 因應臨床發現與實際的營養素檢測需求,本院陸續自行開發了21項完整的營養素檢測,提供臨床 醫師在給予病人營養素補充前後,透過檢測確認營養素缺乏種類與程度,達成「精準檢測、正確 補充、獲得健康不疼痛」。









## Precise pain management and nutrient analysis

Painkillers and interventional treatments is the mainstay of pain management, however it cannot improve some patients' pain effectively, resulting stress for both physicians and patients. Nutrients act as small gear wheels in the machinery of human body that play an important role in ensuring the body functions correctly and precisely. Different types of pain can arise from deficiency of different nutrient. Therefore, precision nutrient analysis is one of the effective approaches to manage pain and an integrated medical nutrition therapy has been a trend in pain management. With precision testing, personalized nutritional supplements and therapy can be provided to improve patient outcomes. In response to clinical findings and to meet the needs for nutrition interventions, Chi Mei medical center developed tests for 21 types of nutrients by using uPLC and LC-MS/MS, providing physicians detailed information on patients' nutritional status for treatment purposes. Optimal pain management outcomes have been achieved through implementation of precision testing and medical nutrition supplements and adjustments.







