

機器取代人工的時代：全自動腹透析比人工腹膜透析好嗎？

## The advantage and dis-advantage of automated peritoneal dialysis

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Automated peritoneal dialysis (APD) (全自動腹透析) is a treatment modality of peritoneal (PD) (腹膜透析) dialysis different from the traditional manual continuous peritoneal dialysis (CAPD) (人工腹膜透析). Conventionally, CAPD patients have to perform 4-5 dialysate exchanges a day with each exchange takes around 20 min. APD is a design to allow an automated exchange machine to perform dialysate exchange to reduce frequency of dialysate exchanges and the burden for patients and/or caregivers. This PD treatment modality also allows individualized prescription of PD therapy. APD is particularly beneficial for patients with regular commitments during the day, those who are working or studying, those caring for family members or children. APD has long been highly penetrated in Western country. In Taiwan, there are around 35% PD patients accepting APD therapy. Between APD and CAPD, there is no difference of mortality, infectious complication, mechanical complication, catheter removal, dialysis adequacy, or maintenance of residual renal function. When hospitalized, APD patients tended to have a shorter admission time. The quality of life of PD patients is better in APD than CAPD. APD patients significantly spend more time in social activities, work and family. The fluid status and blood pressure control in APD patients can also be maintained as well as in CAPD. The patient compliance is higher in APD than in CAPD. Nocturnal dialysis treatment, however, can disturb sleep for some patients. Sleeplessness is quite common in APD patients although some study did not show a difference between APD and CAPD. APD are more commonly used in pediatric patients or patients with high peritoneal membrane transport ability. The outcome equality between these 2 modalities should encourage caregivers to suggest a modality choice that accords with the patient's life style. APD can a good option for some patients, prescriptions must match patients membrane transport status, residual renal function, body surface area, and life style preference.