Author Year Country Research Design Score Total Sample Size	Methods	Outcome
de Groot et al. (2020) Netherlands Observational N=96	**Population:** Gender: males=72, females=24; Mean age=47.8yr; Injury: SCI=57, amputation=14, spina bifida=2, other=19; Mean time since injury=13.2yr. **No Intervention:** Participants completed a survey which concerned the benefits of participating in the HandbikeBattle event, current sport participation, and experienced barriers and facilitators regarding current sport participation. **Outcome Measures:** Experienced benefits/losses (fitness, health, handcycling, performance activities in daily life, personal development), exercise and sports participation (average hr per week during last 3mo), experienced barriers and facilitators (personal barriers, environmental barriers, personal facilitators, environmental facilitators).	1. The median amount of participation in sport was 5.0hr/wk for those currently involved in sport.
Kooijmans et al. (2020) Netherlands Observational N=268	**Population:** Mean age: 47.7yr; Gender: males=197, females=71; Motor complete SCI=221; Mean time since injury: 24yr. **No Intervention:** Participants completed two questionnaires during an aftercare SCI check-up within one day. **Outcome Measures:** Spinal Cord Independence Measure III (SCIM-III), Physical Activity Scale for Individuals with Physical Disabilities.	1. Mean and median MET score for physical activity were 19.4±20.6 and 12.7, respectively.
Postma et al. (2020) Netherlands Observational $NI_{initial}$=47, N_{Final}=38	**Population:** Mean age: 54.5yr; Gender: males=25, females=22; Injury: Tetraplegia AIS C=1, Tetraplegia AIS D=22, Paraplegia AIS C=3, Paraplegia AIS D=21; Mean time since injury: 89.6d. **No Intervention:** Participants wore an Activ8 sensor and were evaluated 2wk prior to discharge and at 6mo and 1 year post discharge from inpatient rehabilitation to evaluate changes in duration of physical activity and sedentary behavior. **Outcome Measures:** Level of physical activity and Sedentary Behaviour (measured with Activ8 sensor(s)).	The duration of physical activity and sedentary behavior changed between discharge and 6mo by 21min/d (p=0.004) and -64min/d (p<0.001), respectively. It remained stable from 6mo to 1yr. Mean physical activity at 1yr post discharge was 116±59min/d, with 21% being active <60min/d. The duration of walking and standing increased in the first half year, while wheeling and maneuvering decreased (p<0.01). Walking intensity was the only outcome that increased in the second half year (p=0.044) Duration of running, cycling, prolonged bouts, and fragmentation indexes did not change over time (p>0.05).
Santino et al. (2020) Canada Observational N=170	**Population:** Age: <55yr=54, >55yr=116; Gender: males=136, females=34; I Injury: Incomplete paraplegia=40, Complete paraplegia=40, Incomplete tetraplegia=58, Complete tetraplegia=30, missing=2; Time since injury: <10yr=48, 10+yr=122. **No Intervention:** Participants completed various measures during a telephone interview.	1. The mean minutes per week of moderate and heavy leisure time physical activity was 255.25±457.59.

	Outcome Measures: Leisure Time Physical Activity Questionnaire for People with SCI, UCLA Loneliness Scale, Life Satisfaction Questionnaire.	
Jorgensen et al. (2017) Sweden Observational N=119	**Population:** Mean Age=63.5±8.7yr; Gender: Males=84, Females=35; Level of Injury: C1-L5; Severity of Injury: AIS A-C=60, D=59; Mean Time Since Injury=23.9±11.7yr. **No Intervention:** Review of data from the Swedish Aging with SCI Study to assess participation in leisure time physical activity (LTPA) among older adults with long-term SCI. **Outcome Measures:** Physical activity recall assessment for people with SCI (PARA-SCI), intensity, type and duration of physical activity.	1. The mean minutes per day of total LTPA were 34.7, while moderate-to-heavy was 22.5.
Montesinos-Magraner et al. (2018) Spain Observational N=67	**Population:** Complete motor SCI (T2-T12). *Inactive group (n=30):* Mean age: 50.63yr; Gender: males=20, females=10; Mean time since injury: 15.77yr. *Active group (n=37)*: Mean age: 43.4yr; Gender: males=31, females=6; Mean time since injury: 17.76yr. **No Intervention:** Participants who were full time manual wheelchair users, wore an accelerometer attached to their non-dominant wrist for a period of 1 week (actigraph model GT3X). Participants were divided into active (at least 60min moderate to vigorous physical activity per week) or inactive groups. **Outcome Measures:** Physical activity levels, risk factors for metabolic syndrome.	1. The inactive group, compared to the active group, had significantly less METS (MD -0.13), and less minutes per day of light (-95.73), moderate (-22.89) and moderate-to-vigorous (-23.10) activity (all $p<0.001$), as well as vigorous exercise (-0.21, $p=0.04$).
Perrier et al. (2017) Canada Observational N=695	**Population:** Mean age: 46.81±13.41yr; Gender: males=528, females=167; Injury etiology= Traumatic, Mean time since injury: 15.19yr±11.10yr. **No Intervention:** Cross sectional analysis to examine daily activity time. **Outcome Measures:** Daily self-reported activity time across 36 different activities that did not include LTPA. Relationships between variables and activity time.	1. Participants reported an average of 127.92±142.79 min per day of total daily activities, with significantly more minutes per day spent on mild-intensity (78.93±104.62 min per day) than moderate-intensity (40.23±68.71 min per day, t= 9.06, Po0.0001) or heavy-intensity activities (8.75±24.53 min per day, t=17.33, Po0.0001).
Rocchi et al. (2017) Canada Observational N=73	**Population:** Mean age: 52.99yr; Gender: males=54, females=18, undisclosed=1; Level of injury: Paraplegia=41, Tetraplegia=28, undisclosed=4; Level of severity: AIS A=,33 AIS B=10, AIS C=13, AIS D=15; Mean time since injury: 19.99yr. **No Intervention:** Individuals completed a questionnaire by telephone. The questionnaire was completed twice, once in response to aerobic activities and one for resistance activity. Physical activity levels were compared to SCI specific physical activity guidelines. Aerobic guideline was at least 2 sessions (at least 20min each) of moderate to vigorous intensity aerobic activity in last 7 days. The resistance guideline was similar (2 sessions in last 7 days).	1. Twelve percent of participants met the guidelines, and 44% reported 0 min of physical activity. 2. Participants reported 27.15±55.64 min/wk. of moderate aerobic physical activity and 11.68±25.02 min/wk. of vigorous aerobic activity. 3. Participants reported 11.42±25.04 min/wk. of moderate resistance physical activity and 2.30±9.13 min/wk. of vigorous resistance physical activity.

	Outcome Measures: Leisure Time Physical Activity Questionnaire for People with SCI (LTPAQ-SCI), Treatment Self-Regulation for Exercise Questionnaire.	
Rauch et al. (2016) Switzerland Observational N=485	**Population:** Mean age: 52.9yr; Gender: males=357, females=128; Severity of SCI: Complete paraplegia=159, Incomplete paraplegia=169, Complete tetraplegia=55, Incomplete tetraplegia=100, missing=2; Mean time since injury: 17.3yr. **No Intervention:** Participants completed a survey examining physical activity levels. **Outcome Measures:** Four items from the Physical Activity Scale for Individuals with Physical Disabilities, Spinal Cord Independence Measure.	1. Among all participants, 18.6 % were physically inactive, 50.3 % carried out muscle-strengthening exercises, and 48.9 % fulfilled the World Health Organization (WHO) recommendations. 2. The median total time for all physical activities per week was 6.0hr. 3. Participants spent the most time (median 2.2hr) performing sports of light intensity. 4. Participants with complete paraplegia, manual wheelchair users, and time since injury 16-25yr spent the most median time on sports of moderate intensity.
Flank (2014) Sweden Cross-sectional N=134	**Population:** Age=47.8±13.8yr.; Gender: males=103, females=31; Level of injury: T1-T6=34, T7-L4=66; Level of severity: Not reported; Time since injury=18.5±12.3yr. **No Intervention:** cross-sectional. Participants had their self-reported physical activity assessed to determine its influence on risk markers for cardiovascular disease (CVD). **Outcome Measures:** Physical activity (PA), Body Mass Index (BMI), Blood Pressure (BP - Systolic & Diastolic), Blood glucose (BG), Total Cholesterol ((TC) High Density Lipoprotein (HDL), Low Density Lipoprotein (LDL)), Triglycerides (TG).	1. 1 in 5 persons reported completing ≥30min of PA per day. 2. Comparison of CVD risk markers between the persons fulfilling the criteria or not showed significant differences regarding BP, and a trend toward significant differences regarding BMI and LDL/HDL ratio. 3. Older age correlated with lower level of self-reported PA with the amount of PA ($p=0.047$), and with the amount of moderate/vigorous physical activity (MVPA) ($p=0.005$). 4. Those who were physically active ≥30min per day were significantly younger than those who were inactive ($p=0.001$). 5. No significant differences between the physically active and on-active group concerning socioeconomic factors in the study.

Kroll et al. (2012) UK Observational N=612	**Population:** Mean age: 48.5yr; Gender: males=386, females=226; Paraplegia=300; Complete SCI=356; Mean time since injury: 15.88yr. **No Intervention:** Participants completed mail-in surveys over 2yr examining exercise self-efficacy and exercise behaviour. **Outcome Measures:** Exercise frequency and intensity, Exercise Self-Efficacy Scale.	1. Participants engaged in aerobic exercise, on average, 2.4±2.3d/wk and resistance training 2.15±2.14d/wk. 2. Participants, on average, rated their aerobic and resistance training intensity to be moderate.
Ishikawa et al. (2011) USA Observational N=11	**Population:** Age=49.3±13.7yr.; Gender: males=7, females=4; Level of injury: C=5, T=4, L=2; Level of severity: ASIA A=0, B=0, C=9, D=2; Time since injury=4.9±7.7yr. **No Intervention:** observational. Participants wore a StepWatch Activity Monitor during waking hours for 7 consecutive days. **Outcome Measures:** Daily Step Activity (DSA), Variance in DSA.	1. Overall mean number of steps per day was 1281±1594.
De Groot et al. (2011) Netherlands Cross-sectional N=139	**Population:** Age=41.6±14.1yr.; Gender: males=101, females=38; Level of injury: paraplegia=95, quadriplegia=43; Level of severity: complete=89, incomplete=50; Time since injury=7.5±169days. **No Intervention:** cross-sectional. Participant's physical activity was measured using the physical activity scale for individuals with physical disabilities (PASIPD) 1 year after discharge from in-patient rehabilitation and results were compared between those with paraplegia and those with tetraplegia or lost. **Outcome Measures:** Physical activity scale for individuals with physical disabilities (PASIPD), The Wheelchair Circuit, Utrecht Activities List (UAL),	1. Total mean PASIPD score across 139 participants was 17.8 (18.6) MET hr/day (range of 0 - 74.4). 2. Those with tetraplegia or long TSI (long: TSI>672 days) had significantly lower PASIPD scores compared with those with paraplegia ($p=0.02$) or those with short TSI ($p=0.03$). 3. Completeness of the lesions did not lead to significantly different PASIPD score ($p=0.97$). 4. Moderate correlations were found between the PASIPD total score and activities ($p<0.01$). 5. PASIPD total score revealed weak correlations between most physical capacity measures, except the manual muscle test (MMT) sum, which showed a moderate correlation. 6. Strong correlation was found between strenuous sport or recreational activities and the number of hours per week a person participates in sport activities (measured by UAL). 7. Weak correlations were found between light and moderate sport or recreational activities and VO2peak or POpeak, and between muscle strength training and muscle strength measured by MMT or handheld dynamometry.
Martin Ginis, Latimer, et al. (2010) Canada Cross-Sectional N=695	**Population:** Mean age:47.1±13.5yr; Gender: males=531, females=164; Mean time post-injury: 15.3±11.1yr	1. Respondents reported a mean of 27.14±49.36 minutes of LTPA a day. 2. 50.1% of participants reported no LTPA whatsoever.

	No Intervention: Data on physical activity and demographic/injury-related characteristics of SCI patients were collected through telephone interviews. **Outcome Measures:** Physical Activity Recall Assessment for Persons with Spinal Cord Injury (PARA-SCI).	3. Highest amounts of daily LTPA (≥21min/d) were associated with manual wheelchair use and T1 to S5, AIS grade A to C injury. 4. Moderate LTPA (1–20min/day) was most associated with being female, 5 to 10 years post injury, and 21 to 33.8 years of age. 5. Inactivity (0min/d) was most associated with being male, greater than or equal to 11 years post injury, and greater than or equal to 33.8 years of age.
Martin Ginis, Arbour-Nicitopoulos, et al. (2010) Canada Cross-Sectional N=347	**Population:** A subset of participants in the SHAPE-SCI study who reported at least some LTPA. Mean age: 45.4±13.8yr; Gender: males=270, females=77; Mean time post-injury: 13.5±10.0yr. **No Intervention:** Data on physical activity was collected through telephone interviews. **Outcome Measures:** Physical Activity Recall Assessment (PARA-SCI). This was broken down by type and intensity of activity.	1. Participants reported 55.15±59.05min/day of LTPA at a mild intensity or greater. Median LTPA was 33.33min/d. 2. Participants engaged and spent significantly more time on moderate intensity LTPA than mild or heavy intensity LTPA, and more time on mild LTPA than heavy intensity LTPA. 3. Resistance training, aerobic exercise, and wheeling were the most frequently reported, whereas sports and craftsmanship activities were performed for the longest durations. 4. Activity duration differed as a function of activity intensity for resistance training, wheeling, craftsmanship, walking, play, and standing. 5. Resistance training was done for more minutes at a moderate intensity than at heavy and mild intensities, and for more minutes at a heavy intensity than a mild intensity. 6. Craftsmanship, play, and wheeling were performed for more minutes at a mild or moderate intensity than at a heavy intensity. 7. Walking and standing were done for more minutes at a moderate intensity than a heavy intensity. 8. Resistance training, aerobic exercise, and general fitness activities were more likely to be performed at a moderate or heavy intensity than a mild intensity. 9. There was no difference in the rate of participation in mild, moderate, or heavy intensity sport

		activities or in the amount of time spent performing mild, moderate, or heavy intensity activity for the general fitness activities, gardening, swimming, sports, or aerobic exercise.
Tawashy et al. (2009) Canada Cross-sectional N=49	**Population:** Age=43.7±11.7yr.; Gender: Not reported; Level of injury: paraplegia=33, tetraplegia=16; Level of severity: complete=30, incomplete=19; Time since injury=11.8±9.2. **No Intervention:** Cross-sectional. Participants completed the physical activity recall assessment for people with Spinal Cord Injury (PARA-SCI). **Outcome Measures:** Physical Activity Recall Assessment for people with Spinal Cord Injury (PARA-SCI), Instrumental Support Evaluation List (ISEL), Standford Self-Efficacy for Managing Chronic Disease Scale (ESE), Fatigue Severity Scale (FSS), Graded Chronic Pain (GCP), Centre for Epidemiological Studies – Depression (CES-D).	1. No significant correlations were found between physical activity and any demographic factors ($p>0.05$ for all). 2. No influence of sex or lesion level on physical activity participation. 3. Physical activity was significantly related to secondary complications fatigue severity for heavy intensity ($p<0.01$), self-efficacy for heavy ($p<0.01$) and total PARA-SCI scale ($p<0.05$), GCP for heavy ($p<0.05$) and mild intensity ($p<0.05$), ISEL for mild intensity ($p<0.05$), and CES-D for mild ($p<0.01$) and total PARA-SCI score ($p<0.05$).
Stevens et al. (2008) USA Cross-sectional N=62	**Population:** Age=35±10yr.; Gender: males=32, females=30; Level of injury: paraplegia=39, tetraplegia=23; Level of severity: complete=38, incomplete=24; Time since injury=9±9yr. **No Intervention:** Cross-sectional. Participants completed two surveys, the Quality of Well-Being Scale and the Physical Activity Scale for Individuals with Physical Disabilities to document the relationship between level of PA and QoL. **Outcome Measures:** Quality of Well-Being Scale (QoWBS), Physical Activity Scale for Individuals with Physical Disabilities (PASIPD).	1. The mean PASIPD score was 26.40±8.32. 2. Significant positive association between level of physical activity and quality of life was observed ($p<0.05$). 3. When physical activity, anatomical location of the injury, completeness of injury, and time since injury were used as explanatory variables, level of physical activity was the only significant predictor of QoL.
Van den Berg-Emons et al. (2008) The Netherlands Observational $N_{Initial}$=36 N_{Final}=16	**Population:** T1: Mean age: 42.1yr; Gender: males=28, females=8. T5 (n=16): Mean age: 42.2yr; Gender: males=14, females=2. **No Intervention:** Participants' physical activity level was monitored 2 consecutive weekdays every assessment period using an activity monitor. Data was collected at the start of inpatient rehabilitation (T1), 3 months later (T2), at discharge from inpatient rehabilitation (T3), and 2 months (T4) and 1 year post discharge (T5). **Outcome Measures:** Physical activity level based on accelerometry-based activity monitor.	1. The duration of dynamic activities and the intensity of everyday activity increased during inpatient rehabilitation at rates of 41% and 19%, respectively ($P<0.01$). 2. Shortly after discharge, there was a strong decline (33%; $P<0.001$) in the duration of dynamic activities. 3. One year after discharge, the duration of dynamic activities was restored to the discharge level (3.4%±3.3%; corresponding with 49min/d), but was significantly lower ($p<0.001$) compared to the levels in able-bodied persons (9.9%±4.1%; corresponding with 143min/d).
Buchholz et al. (2003)	**Population:** *Men* Age=38.7±10.7yr.; n=17; Level of injury: paraplegia=17, quadriplegia=0; Level of	1. Fifteen participants (56%) engaged in structured physical

Canada Cross-Sectional N=27	severity: Not reported; Time since injury=10.4±8.1yr. *Women* Age=31.7±6.0yr.; n=10; Level of injury: paraplegia=10, quadriplegia=0; Level of severity: Not reported; Time since injury=16.1±11.1. **No Intervention:** Cross-sectional. Participants wore a heart rate monitor (HRM) and had outcome measures taken/calculated and results were compared to the World Health Organization recommendations and between persons with complete vs. incomplete paraplegia. **Outcome Measures:** Heart Rate (HR), Total Daily Energy Expenditure (TDEE), Physical Activity Level (PAL), Energy Intake (EI)	activity 1.46±0.85 times during the observation period for a mean of 49.4±31.0 minutes. 2. Mean PAL of the group was 1.56±0.34 bouts, indicative of limited physical activity. 3. TDEE was 24.6% lower in participants with complete paraplegia (2072±505 vs. 2582±852 kcal/d, p=0.0372). 4. No differences in FLEX HR (p=0.5965) or mean daily HR (p=0.5645) between those with complete or incomplete SCI. 5. No significant difference between those with complete or incomplete SCI for TDEE using the Student's *t* test (p=0.1611). 6. No association between since onset and TDEE (p=0.6591) or PAL (p=0.9547). 7. EI was significantly underreported overall (p=0.0320).